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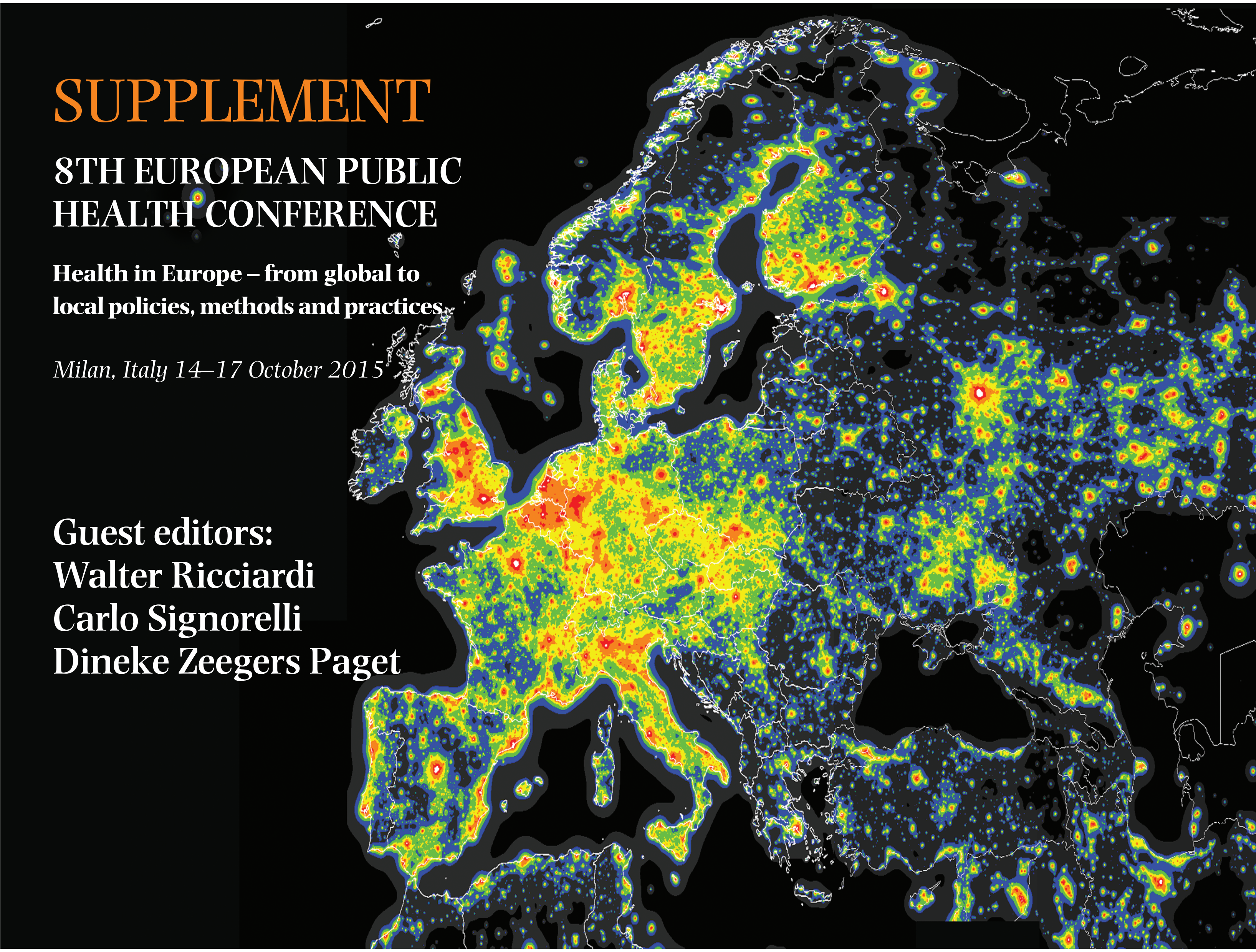

SUPPLEMENT

8TH EUROPEAN PUBLIC HEALTH CONFERENCE

Health in Europe – from global to local policies, methods and practices

Milan, Italy 14–17 October 2015

Guest editors:
Walter Ricciardi
Carlo Signorelli
Dineke Zeegers Paget

EUPHA
EUROPEAN PUBLIC HEALTH ASSOCIATION

SItI
SOCIETÀ ITALIANA DI IGIENE
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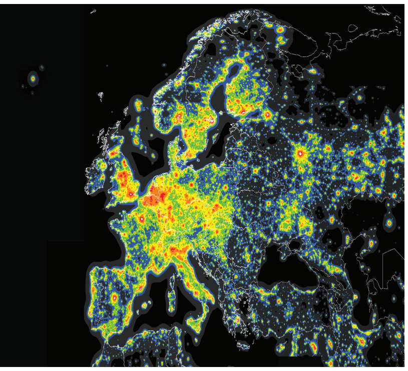

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8TH EUROPEAN PUBLIC HEALTH CONFERENCE

Health in Europe – from global to local policies, methods and practices

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ABSTRACT SUPPLEMENT

Guest editors: **Walter Ricciardi, Carlo Signorelli and Dineke Zeegers Paget**

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1. INTRODUCTION

We are delighted to introduce this Abstract Supplement to the European Journal of Public Health which contains the abstracts of papers to be presented at the 8th European Public Health (EPH) Conference, held 14–17 October 2015, Milan, Italy. The supplement includes abstracts for the main part of the conference: plenary sessions; oral sessions (including workshops); pitch sessions; poster walks and poster displays.

For Milan 2015, we received a new record in abstracts and workshops: 1274 single abstracts and 82 workshops from 68 countries worldwide. We received 371 single abstracts from early career professionals (including students). These new records posed a challenge to the International Scientific Committee (ISC), responsible for the reviewing of the abstracts. The ISC of the Milan 2015 conference consisted of 58 experts from 22 countries and was chaired by Walter Ricciardi from Italy. We are extremely grateful to all ISC members for the hard work this involved. The members of the ISC scoring in 2015 are listed in the Box.

On average, each single abstract was scored by 5.5 scorers, each workshop by 5.0 scorers. The average score of single presentations was 4.397, on a scale between 1.000 and 7.000. The highest score was 6.600, the lowest 1.000. The average score of workshops was 4.509. The highest score was 6.000, the lowest 2.600.

The decisional meeting was organised on 4 June 2015, where the EPH Conference Executive Board decided on cut-off points for workshops, oral presentations, pitch presentations and poster presentations. The following decisions were made:

Workshops: average score of 4.400 or higher were accepted in the programme
Oral presentations: average score of 5.286 or higher were accepted
Pitch presentations: average score of 4.600 or higher were accepted
E-Poster walks: average score of 4.200 or higher were accepted in the poster walks
E-Poster displays: average score of 3.500 or higher were accepted as E-poster displays

Following these decisions, abstracts were grouped in sessions, sessions in tracks and tracks were linked to the contents of the plenary programme. The programme for Milan 2015 is organised in 15 thematic tracks, that mix workshops, oral sessions and pitch sessions. Poster walks and poster displays are organised in separate tracks.

The 15 tracks are:

A. Global health
B. European public health
C. All inclusive public health
D. Research, evidence, action
E. Communication and advocacy
F. Health data: methodology, monitoring and reporting
G. Evidence and public health practice
H. Austerity and health inequalities
I. Infectious diseases / News in public health
K. Chronic diseases
L. Work and sick leave / Food and nutrition
M. Mental health
N. Child and adolescent public health
O. Health promotion
P. Health services research

We greatly enjoyed reading the submissions, and learned much from them. We hope that you will find this volume equally interesting, and even more so the actual presentations, which promise to be of high quality yet again.

Prof Carlo Signorelli, Chair of the 8th European Public Health Conference
Prof Walter Ricciardi, Chair of the International Scientific Committee
Dr Dineke Zeegers Paget, Director of the EPH Conference Office

International Scientific Committee, Milan 2015

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2. PLENARY SESSIONS

OPENING SESSION OF THE 8TH EUROPEAN PUBLIC HEALTH CONFERENCE

Thursday 15 October 2015 13:00-13:45

Organised by: EPH Conference

Welcome to the 8th European Public Health Conference, Milan 2015
Carlo Signorelli, Chair of the 8th EPH Conference

Planetary health: what should Europe do?
Sir Andy Haines, London School of Hygiene and Tropical Medicine, United Kingdom

PLENARY 1: GLOBAL HEALTH RISKS: WHAT IS EXPECTED OF EUROPE?

Thursday 15 October 2015 17:35-18:35

Organised by: EUPHA
Moderators: Walter Ricciardi and Carlo Signorelli, Italy

Global health is an interdisciplinary field encompassing the health of everyone without considering national borders. Global health risks therefore differ from other risks by effecting a much larger number of the world population. Examples of global health threats are non-communicable diseases and their risk factors, such as smoking, physical inactivity or obesity. They are responsible for a major global burden of disease and high mortality rates. Further, the world is experiencing environmental changes, influencing individual's living environment and food availability. Globalisation itself is increasing. This has significant impacts on disease dissemination, -prevention, -control and preparedness on a global level. Tackling global health risks therefore requires international cooperation as well as communication and improved governance of health systems.Europe is only one possible actor in the field of global health issues. To enhance global health, ensure global health security and strengthen the global ability of tackling health challenges, all players have to cooperate. Thereby it is important to identify Europe's role in global health, to be able to act and react efficiently. What is expected from Europe? This plenary session provides an insight into the complex picture of global health by examining what has happened in health on a global level. It will further give an overview of global health threats and critically analyse Europe's role as a global health actor.

Setting the scene: Global health risks and Europe
Martin McKee, President EUPHA

Practical insight on how to manage the European Council on global health issues
Beatrice Lorenzin (invited), Minister of Health, Italy and immediate past president of the European Council

Panel discussion with:
Mengistu Asnake Kibret - World Federation of Public Health Associations, Ethiopia
Kasturi Sen - Wolfson College, Oxford University, United Kingdom
Scott L. Greer - Department of Health Management and Policy, University of Michigan, USA

PLENARY 2: HEALTHY PEOPLE, HEALTHY PLANET

Friday 16 October 2015 11:35-12:35

Organised by: EuroHealthNet
Moderator: Caroline Costongs, Managing Director EuroHealthNet

Several societal trends and challenges that we are facing today have an impact on public health and wellbeing. Persistent social inequalities, environmental degradation and climate change are affecting health of the population. Health is a condition for, and outcome of, economic and social development and is intrinsically linked to the environment. Sustainable development and public health share many common goals, which will be explored in this plenary session. A link will be made to the theme of the world exposition EXPO Milano 2015 on 'Feeding the planet, Energy for life'

Health in the Post 2015 Framework
Ilona Kickbusch, Graduate Institute of International and Development Studies, Switzerland

This presentation gives the audience an update on the Post 2015 process, on the Sustainable Development Goals and to outline how health can benefit from being part of this Framework. This contribution will address the three dimensions of sustainable development: social, environmental and economic, but will particularly focus on how health and (global) environmental concerns are intertwined and can only be tackled in collaboration.

Making ecological public health a reality
George Morris, Exeter University, United Kingdom

The core aspect of Ecological Public Health is that public health needs modernization around ecological principles, recognizing that human and social ecology is inextricably linked to natural ecology and in direct interaction with it. This presentation will explore our use of natural resources, how that impacts on ecosystems and relates to public health, also linking "good" environments (such as green and natural spaces) with positive effects on health and well-being.

Sustainable Food, Nutrition and Health

Tim Lang, Centre for Food Policy, City University London, United Kingdom

This presentation will discuss food policy as an intersection of public health, environment, consumers and social justice. The 21st century needs public health sector to focus on Sustainable Diets just as the 20th century required public health to create Dietary Guidelines. Our task is to fuse public health and ecosystems in dietary advice. At present, most policy is focussed on raising food production but is ignoring the problem of over-consumption and mal-consumption, yet these are associated with the rise of non-communicable disease.

How can public health institutes actually work inter-sectorally to promote health and well-being as part of sustainable development and environment agenda's. Examples from RIVM, The Netherlands.

Annemiek van Bolhuis, National Institute for Public Health and the Environment (RIVM), The Netherlands.

PLENARY 3: LEARNING FROM EACH OTHER: HOW TO TRANSFER BEST PRACTICE ACROSS BOUNDARIES

Friday 16 October 2015 13:45-14:50

Organised by: European Observatory on Health Systems and Policies
Moderator: Josep Figueras, European Observatory on Health Systems and Policies

Europe is often referred as a 'natural experiment' or a 'giant laboratory' for public health and health systems strategies offering an enormous potential for countries and regions to learn from each other and to transfer best practice. The need and value of comparative analysis is heightened by a series of common external pressures such as the economic crisis or the ageing of the population leading policy makers to a common search for strategies to ensure health system sustainability and resilience. In the same way a number of pan European policies adopted by Member States such as the WHO's Health 2020 or the European public health action plan as well as EU harmonization efforts such as the implementation of the patient's right directive, the communication on sustainability and the European semester make cross border learning an imperative.

As a result, European and national organizations have stepped up efforts to monitor public health and health services, provide comparative assessments and to put in place common indicators for health systems performance assessment. While there is some progress, these information and research efforts are lagging behind the actual policy needs and need to be further strengthened. One area in particular need of improvement (both from the research and policy perspectives) is that of transferring knowledge, best practice or reform innovation between different national, regional or local settings in a way that can be implemented effectively in the new policy setting. In practice knowledge transfer and sharing of best practice is not without risk and in some instances no transfer would be a much better outcome. It is sometimes fraught with many implementation complexities such as those posed by ideology driven evidence or by a coercive context of regulatory implementation and public reporting with flawed performance assessment. This session will thresh out the issues above from a very practical perspective exploring both the implications for a research agenda that supports effective policy transfer and the actual mechanisms that need to be put in place so to make learning from each other's best practice a reality for our policy makers.

Key note

One analyst on the science and practice of knowledge transfer drawing from the extensive work in other fields in particular with the diffusion of innovation

Panel discussion

An interactive discussion that would involve the policy maker and facilitator challenging the organizations and research involved in policy transfer. On how are we transferring knowledge in public health and health services? what are the sources and instruments at hand? What should be the research agenda? does a more coercive context foster or hamper knowledge transfer?

PLENARY 4: FUTURE OF HEALTH INFORMATION

Friday 16 October 2015 17:25-18:25

Organised by: European Commission

PLENARY 5: THE GLOBAL PUBLIC HEALTH PROFESSIONAL

Saturday 17 October 2015 13:30-14:30

Organised by: ASPHER
Moderator: Jacqueline Mueller-Nordhorn, Charité University, Berlin, Germany

This plenary revolves around central questions on public health professionals in a rapidly globalising world. It brings together public health leaders who are engaged in strengthening human resources for health in different fields including public health and medicine. Speakers address several key questions in their presentations:

— How realistic is a vision of having available globally highly educated and experienced public health workforce in order to achieve the future Sustainable Development Goals?

- Do we need and do we have acknowledged global functions and performance standards for public health professionals?
- Which competences are required in the future to meet global health challenges and what are interfaces and synergies between medicine and public health global work?
- Can we develop criteria for good education and training of global public health professionals?

The main points at the plenary are:

1. Global background in preparing public health professionals includes interface and synergies between functions, competences and performance at global level. Here we assume that education and research are core composite parts in the development of global health professionals. Recent developments related to cross-border mobility of higher education stimulate the higher education institutions to become global actors.
2. Competence-based education in global health is important and open debates about the scope of education for global health. The commonality of educational programmes for global health in different settings is important. An example of selected list of competences' domains in global health for medical and public health students points to this practice. Based on the recent ASPHER survey, schools/departments of public health are at the beginning of their efforts in preparing public health professionals to perform at the global level.
3. However the question about the way forward in partnerships for better performance of global health professionals is still on the table. This includes ethical considerations of partnerships involved in education and importance of the networking in education for global health.

How to deal with local and global public health interventions?

Adriana Corina Stanciu - Resident Physician, Coltea Clinical Hospital, Bucharest, Romania

The primary site of activity for most public health interventions is within individual communities or neighbourhoods. This locale is where the members of the population and the public health practitioners interact. For issues that are unique to the community or that are addressing specific needs of a particular group, the local approach is the most effective. However, many public health problems extend beyond local borders and problems may require involvement of counties, states, the nation, or even other countries to fully understand the scope of the problem and respond to it. National and global organizations can often facilitate communication among the affected populations, provide access to expertise not available locally, and coordinate efforts to respond.

Throughout the world, people who face stigma and discrimination are often left with substandard or no health care and so is the case with Roma, Europe's largest and most excluded ethnic minority. OSF's Public Health Program Roma Health Project (RHP) works to advance the health and human rights of Roma people by building the capacity of Roma civil society leaders and organizations and advocating for accountability and a strong civil society role in the design, implementation and monitoring of policies and practices that most impact on the health of Roma. Health problems are best addressed by cooperative actions, approaches guided by experience and sound scientific research.

Co-production of policies and programs and implications for global public health practice and education

Suzanne Marie Babich - University of North Carolina, USA

Evidence suggests that outcomes are improved, costs are lowered, and patients are more satisfied when they and their families are substantially involved in the health care decisions and practices from which they are meant to benefit. While "community based, participatory" approaches are not a new concept in health care research and service, the concept of individuals and communities as equal partners and co-creators of health programs and policies advances this ideal. Understanding the concept of "co-production" in health services and its potential to benefit populations may stimulate innovation and improvement in global public health practice and has implications for health professions education. Examples include a field-based, graduate-level public health course at the University of North Carolina at Chapel Hill (USA). In the first year of the course pilot, students in the U.S. and personnel at a Delhi-based NGO together participated in classes designed to teach an approach to quality improvement and apply it in a real life setting, in this case at a call centre for men who have sex with men. In the second year of the course pilot, students worked with NGO personnel to improve data collection at a Tanzania-based clinic treating children with clubfoot. The concept of co-production deserves further attention from public health professionals and educators who may consider ways of implementing it in practice settings and in global public health education.

What if you want to "go global", but feel stuck and very local?

Alessandra Lafranconi - University of Milan-Bicocca, Italy

The title reflects on a common experience, at least in Italy, where the 8th EPH Conference is taking place. The 2013 article "Perceived need for an international elective experience among Italian medical residents", authored by medical residents in Hygiene and Preventive Medicine (which represent the young voice in public health), well supports this evidence.

Are there solutions? Absolutely. Among others, three practical actions could help us, medical residents, in asking and achieving better education in public health: young professional health networks, mentorship, and access to global educational technologies.

Young professional health networks are fundamental tools towards competency-based education. As argued by Boyle and Ribeiro, networks such as the Young Forum Gastein expose us to the development of crucial skills. Mentorship plays a role to develop critical judgment and leadership, especially for women, and lack of mentoring is one of the most common barriers to career advancement.

The recognition of open-access online courses has been called by Julio Frenk already two years ago, at the 6th EPH Conference. Since then, the number of online courses has skyrocketed. A wider use of these educational technologies can compensate for the absence of traditional teaching, and should be implemented especially in under-addressed topics, such as ethical approaches in public health.

The importance of public health education globally

Michael Moore - Public Health Association, Australia

The aim of this paper will be to provide some insights into the importance of public health education globally and to present some ideas on the sort of action that ought to be taken worldwide to meet new complexities and new challenges. Of particular focus will be specific actions that can be undertaken under the umbrella of advocacy. The background is 1978 Declaration of Alma Ata which identified the global issues framing them as "Economic and social development, based on a New International Economic Order, is of basic importance to the fullest attainment of health for all". In 1986 the Ottawa Charter put advocacy on the agenda for public health professionals. However, the efforts to systematically examine the most effective processes to conduct advocacy in a structured manner at the local, national and international levels have been inadequate. The method will be to put a particular focus on the ''Investor State Dispute Mechanism'' particularly in the light of the WFPHA/WHO ''Global Charter for the Public's Health'' that is final development stage. Analysis of case studies of advocacy efforts around international treaties and particularly the world's most extensive agreement, the Trans Pacific Partnership will be discussed with an aim to considering the most effective way to influence, or persuade decision makers. Of particular note is the impact that such policy decisions have on marginalised groups such as indigenous people. These examples will lead to conclusions around the most effective ways to carry out advocacy at the Global, National and International levels.

Panel discussion with above-mentioned speakers and:
Armin Fidler - President European Health Management Association (EHMA), USA/Austria
Jean Rochon - ASPHER Andrija Stampar Medalist

CLOSING SESSION OF THE 8TH EUROPEAN PUBLIC HEALTH CONFERENCE

Saturday 17 October 2015 14:30-15:15

Organised by: EPH Conference
Moderator: Carlo Signorelli, Chair 8th European Public Health Conference

Summary of the Conference

Natasha Azzopardi-Muscat, President-elect EUPHA, Malta

Welcome to Vienna 2016

Thomas Dorner, Chair 9th European Public Health Conference, Austria

PARALLEL SESSION 1

Thursday 15 October 2015 13:50 – 15:20

1.A. Regular workshop: Exporting Pollution: The Path of Least Resistance Leads to Poisoned Communities

Organised by: TerraGraphics International Foundation (TIFO)
Contact: bart1432@vandals.uidaho.edu

Chair: Margrit von Braun

Reasons

While Europe and the US face refugee challenges at their borders, a reverse flight is occurring as the global economy facilitates exportation of dangerous production, waste disposal, and recycling to 'pollution havens' in poor countries. Despite fifty years of progressive regulation in high income countries, globally, mineral resources and recycled wastes are produced with more pollution and disease. Wealthy countries benefit, enjoying cheaper goods and clean environments within their borders, subsidized by the health of the world's most vulnerable populations, who are beset with poverty, malnutrition, communicable disease and little health care access. Industries, expert at avoiding health safeguards and costs, follow paths of least resistance to maximize profits at the expense of exploited communities. Consumers, industry, and governments are all complicit in this evolving environmental health disaster.

The workshop examines technical, social, and ethical challenges and responsibilities facing public health professionals addressing this trend. Presentations include a cleanup model successfully applied at childhood lead poisoning sites in Africa, Asia and Latin America, followed by analyses of exposures and health effects among Bangladesh waste recovery worker families. Four presentations describe i) historic trends of public health crises due to global shifts in metals production, ii) a coordinated environmental and health response to an unprecedented outbreak of childhood lead poisoning in Nigeria, iii) a comparison of governmental and industrial developed response strategies applied in Africa with profoundly different health outcomes, and iv) occupational and community exposures from recycling plastics, aluminum, rare earth metals, tannery and garment wastes in Bangladesh.

Objectives

By presenting trends, focusing on recent real-world projects, and reviewing lessons learned, we aim to provide in-depth discussion and practical approaches to responding to public health disasters resulting from export of environmental risk to low income countries. Participants will better understand i) trends in pollution export and health effects; (ii) responsibilities to care, respond, and effect change; (iii) practical steps to address global inequalities in environmental risk; and (iv) examples of responses to public/environmental health crises.

Added Value

Globally, the World Health Organization estimates 9% of deaths in low income countries result from exposures to pollutants; environmental risks are 15–35 times greater, causing children to lose eight times more healthy life years. Both new and experienced public health professionals will benefit from presentations and discussions on global health challenges resulting from pollution export.

Layout

Four presentations, preceded by a brief overview/introduction, will be followed by question/answer sessions and discussion.

Key messages

- 'The path of least resistance leads to crooked rivers and crooked men.' - H.D. Thoreau
- In the face of increasing environmental disease, public health professionals need to develop scientifically sound and culturally appropriate tools to respond to emerging environmental health crises

The need to address public health crises in low income countries due to global shifts in production

Ian von Lindern

Ian von Lindern, Magrit von Braun, Simba Tirima, Casey Bartrem
TerraGraphics International Foundation
University of Idaho Environmental Science Program (Ms Bartrem only)
Contact: ian.vonlindern@terragraphics.com

A review of commodity markets over 50 years reveals that high metals prices result in large numbers of poisoned communities. Globally, thousands of children are dying, with ever more being permanently damaged by metals poisoning in low income countries. These are the planet's poorest people beset with endemic disease and poverty, with little access to medical care. This broad issue - ranging from mining/smelting to recycled rare earth batteries - is examined through the lens of lead poisoning. In the 1970s, industrial disasters resulted in unprecedented childhood lead poisoning and public relations cover-ups, as smelters in the US, Yugoslavia and Africa simultaneously exploited an emerging global economy. Today, the near complete elimination of childhood lead poisoning in Europe, the US and other high income countries is one of the great 20th century public health successes. However, in Kosovo and Zambia that legacy lingers with abandoned factories, contaminated communities, poisoned children, and poverty.

The world now consumes more lead than ever. Mining and smelting production has remained constant for the last several decades, while waste recycling has increased. Primary smelters have abandoned high income countries, supplanted by China; simultaneously, secondary production concentrates in low income countries, severely poisoning children in numbers unprecedented in the 20th century.

From the environmental health perspective, damage associated with mineral processing is inversely proportional to the safeguards countries have in place. There are three main areas of degradation: i) communities around Chinese refineries, ii) middle income countries that sell their resources to international mining concerns, and iii) villagers in low income countries who recycle wastes made profitable by high prices. High income countries are the beneficiaries of this trend, which demands global attention, remedy, and prevention.

An environmental health response to a severe outbreak of childhood lead poisoning in Nigeria

Casey Bartrem

C Bartrem[1,2], S Tirima[1], I von Lindern[1], M von Braun[1]
[1]TerraGraphics International Foundation
[2]University of Idaho Environmental Science Program, Idaho, USA
Contact: casey.bartrem@terragraphics.com

In 2010, Médecins sans Frontières (MSF) discovered an outbreak of childhood lead poisoning in remote Nigerian villages resulting in >400 deaths in children <5 years of age. Investigations identified the source as severe soil lead contamination from artisanal gold ore processing in residential areas. Dramatic price increases resulted in an artisanal 'gold rush' in this otherwise subsistence agricultural area.

Before MSF could provide medical treatment, the villages had to be remediated to provide a lead safe environment. International agencies, including the Joint United Nations Environment Program/Coordination of Humanitarian Affairs Environment Unit (JEU), and non-governmental organizations (NGOs) collaborated with Nigerian health authorities and traditional and religious leadership in a comprehensive emergency health and environmental response. The remediation aimed to i) provide exposure reduction, ii) build local, state, and national capacity to respond to health crises, and iii) ensure environmental remedies would be sustained with safer mining practices.

A coordinated environmental and health response model developed at a US Superfund site was adapted to local conditions, engaging national, international and village stakeholders. Contaminated materials were removed and a 'safer mining' campaign to sustain lead-free villages was implemented among local miners, imams, and tribal chiefs. The environmental response was carried out by assisting local governments to employ villagers to remediate homes with available equipment and materials.

During the 4 year intervention, 2,400 children received chelation treatment and blood lead levels declined from >170 µg/dL to <20 µg/dL; project management transitioned from international partners to Nigerian authorities; and local leaders championed safer mining at ore processing areas to prevent future crises. Local involvement in management, design, implementation, evaluation, and adaptation were crucial to project success.

Lead Pollution in Nigeria and Zambia: Two different remedial strategies and public health outcomes

Simba Tirima

S Tirima[1], *C Bartrem*[1,2], *M von Braun*[1], *I von Lindern*[1]
[1]TerraGraphics International Foundation
[2]University of Idaho Environmental Science Program, Idaho, USA
Contact: simba.tirima@terragraphics.com

Radically different health response strategies were employed at 2 major cleanups of lead poisoning sites in Africa in 2008–2013. Both sites experienced dangerously high community exposures but yielded different outcomes.

The 2010–2013 epidemic in Zamfara, Nigeria was unprecedented in morbidity, mortality, and environmental health response. More than 400 children died from artisanal gold mining. At the Broken Hill smelter in Kabwe, Zambia, a little known 1970s industrial catastrophe left hundreds of children comatose and two dozen dead. More than 90 years of poor controls left a legacy of poverty and poisoning.

In Nigeria, several agencies and NGOs collaborated with federal, state, local, tribal and religious governments to implement US Superfund soil removal protocols adapted to local resources, labor practices, and cultural traditions at a cost of $5M USD. In Zambia, World Bank policies required the government to assume responsibility for the legacy pollution and, together with the Nordic Development Fund, financed a $50M USD remediation plan developed by the mining industry. The strategy, previously rejected by state/federal governments in the US, relies on behavioral modifications and in situ management, rather than removal of contaminants.

The result of the Nigerian cleanup: mean blood lead levels (BLLs) for children declined from 173 µg/dL to <20 µg/dL over the four year response. The work was largely funded by the Nigerian governments, assisted by the United Nations and several NGOs, and was accomplished with local labor and materials. The remedy is being sustained in these remote communities through local civil, traditional and religious governments. The result of the Zambian cleanup: mean BLLs declined from 90 µg/dL to remain >65 µg/dL; soil lead levels >1500 mg/kg are poisoning another generation.

This unfortunate African experiment demonstrates the need for employing scientifically sound, economically responsible, and culturally appropriate health responses.

The Value of Waste: Prognosis for occupational and environmental disease (Lessons from Bangladesh)

Margrit von Braun

M von Braun[1], *I von Lindern*[1], *C Bartrem*[1,2], *S Tirima*[1]
[1]TerraGraphics International Foundation
[2]University of Idaho Environmental Science Program, Idaho, USA
Contact: vonbraun@uidaho.edu

Much of the world's waste is exported to Bangladesh, where it is salvaged by some of the planet's poorest people. Recycling and manufacturing of plastic, metal, garment, and leather products dominate a 7 km2 area in Dhaka housing nearly 700,000 people. They are mostly migrants, whose cheap labor has resulted in the proliferation of hundreds of unregulated small scale factories, including 200 tanneries.

The $1 billion USD tanning industry exports nearly 80% of the leather products to Europe, China and the US. Each day 75 MT of solid wastes and 21,600 m3 of liquid wastes are discharged, untreated, into the Buriganga River. Workers and residents suffer daily from exposures to unsafe occupational and environmental conditions.

Following a conference on occupational/environmental health sponsored by Collegium Ramazzini, Bangladesh hospitals, and labor organizations, we joined Medecins sans Frontieres to assess occupational and environmental exposures. Field data and interviews were combined with a literature review. We developed a conceptual model to illustrate exposure pathways for residents and workers, pollution sources, contaminants of concern, and susceptible populations.

Results show that all residents face high risks of health impacts due to severe soil, water, and air pollution; children are especially vulnerable during scavenging of wastes. Processing of leather wastes likely poses the greatest health threats because recyclers face more severe chemical exposures than those employed at formal factories. Families often live at the factories or waste processing areas, resulting in little difference between occupational and residential exposures.

Bangladesh environmental standards pertaining to leather tanneries meet World Health Organization guidelines, but these standards are not enforced. Further, enforcement of regulations would not adequately protect the informal waste processing workers or address the severe legacy contamination that puts the residents at risk daily.

1.B. Round table: Cross-border health care: non-issue or driver for EU policy?

Organised by: EUPHA Section on public health practice and policy; Department of International Health, Maastricht University; European Observatory on Health Systems and Policies
Contact: timo.clemens@maastrichtuniversity.nl

Chairs: Helmut Brand, Willy Palm, Natasha Muscat

Reasons for the workshop

The Directive 2011/24/EU on the application of patients' rights in cross-border health care is a landmark in European health policy. However the extent to which the directive has had an impact upon Member States' (MS) health care systems and - more importantly - whether it has brought substantive benefits to patients remains open for debate. By 25 October 2015 the Commission is meant to publish its first report on the operation of the Directive. It is therefore timely to reflect upon the implementation of the directive, how it has affected national health systems and what the next steps should be in shaping cross-border health care and developing health policy at European level.

Objectives

The workshop will present the implementation status of the directive and the different approaches that have been taken by MS ranging from minimalist and controlling procedures to a more liberal approach to facilitating cross border care. Based on the work of the EU expert panel on Investing in Health, and more specifically the working group on cross-border cooperation, it will explore how this directive also may generate effects that go beyond patient mobility and how cross-border cooperation may open up avenues from which even domestic patients would benefit. The panel discussion will zoom in on specific areas and issues that through this directive were brought to the EU discussion table: quality and safety of care, patients' rights, cross-border cooperation, health care purchasing, etc. This discussion should help to determine whether the cross-border care directive is indeed a 'solution in search of a problem' as sometimes has been suggested, or rather can be considered an important driver for developing the EU agenda for effective, accessible and resilient health systems.

Layout of the roundtable workshop

1. Introduction by the chair
2. Implementation of Directive 2011/24/EU: a view from the Commission
3. Potential future avenues for cross-border co-operation in healthcare
4. Panel discussion

This panel discussion will gather experts from different MS who will based on their own experience and research elaborate on some of the possible future avenues that have been suggested in line with the implementation of the cross-border care directive, such as:

-Developing a common framework for patient safety and quality in health care at EU level

-Defining a common set of patients' rights and a minimum level of health care coverage for citizens in Europe

-Shaping effective healthcare purchasing policies for healthcare providers irrespective their legal status

-Sharing resources and knowledge in health care more efficiently through cross-border cooperation

-Ensuring continuity and coordination of care across borders.
Panelists:

-Karsten Vrangbaek (DK)

-Ilmo Keskimäki (FI)

-Natasha Azzopardi Muscat (MT)

-Ewout van Ginneken (OBS)

-Irene Glinos (OBS)

-Alex W Friedrich (NL)

Key messages

- The cross-border care Directive could be seen as the EU's foot in the door to developing a more ambitious policy agenda on health systems
- Domestic patients may also benefit from various implementation aspects of the cross-border care directive and this should be a driver for enhanced cooperation between health systems

Implementation of Directive 2011/24/EU - a view from the Commission representative European Commission, DG SANTE

Representative, DG SANTE
European Commission, DG SANTE
Contact: timo.clemens@maastrichtuniversity.nl

Background

Directive 2011/24/EU aims at 'facilitating access to safe and high-quality cross-border healthcare and promotes cooperation on healthcare between MS'. The Directive was due to be transposed into national laws by 25th October 2013. The Directive defines the responsibilities, rights and procedures for access to, and provision of cross-border healthcare and sets out a structure for cooperation on eHealth, health technology assessment, e-prescriptions and European reference networks to facilitate cross-border care.

Methods

Insights into the status of implementation have been gained through various sources. Most obviously, the Commission has had the task of checking all of the measures transposing the Directive which MS have notified. This is reinforced by the information gathered during the country visits the Commission undertook to each MS during the transposition phase. And there has been an ongoing dialogue with stakeholders across the EU about their experience of the Directive.

Results

There has been considerable variation in the transposition of the Directive across MS. There is considerable doubt as to whether some national provisions on cross-border healthcare are in line with the Directive. Lack of awareness of rights continues to be a significant problem. On the other hand, the implementation of the directive appears to have provided leverage for the introduction of certain reforms in national health systems such as the introduction of an explicit legal reference to a basket of services, the setting up of a legal framework for patients' rights and reforms to requirements for professional indemnity insurance.

Conclusions

The impact of the Directive on patient mobility has not been uniform. In some MS it has been very minimal, for various reasons. However, some MS appear to have instrumentalised the implementation of the Directive to address national health system issues. The main effects of the Directive may therefore lie beyond patient mobility.

Potential future avenues for cross-border co-operation in healthcare

Helmut Brand

H Brand[1], W Palm[2], T Clemens[1], M Commers[1]
[1]Department of International Health, CAPHRI School of Public Health and Primary Care, Faculty of Health, Medicine and Life Sciences, Maastricht University, Maastricht, The Netherlands
[2]European Observatory on Health Systems and Policies
Contact: helmut.brand@maastrichtuniversity

Background

Transposition of Directive 2011/24/EU should have been completed by October 2013. However, the Directive foresees ongoing European cooperation as a vital element to facilitate cross-border care. It enables the Commission to stimulate co-operation among MS in areas such as eHealth, HTA, rare diseases, reference networks, quality and patient safety, patient information that go beyond the remit of cross-border care. The main question is where and how could enhanced co-operation develop based on mapping of existing activities and needs.

Methods

Avenues for future cross-border care co-operation were elaborated in a new opinion on cross-border co-operation of the Expert Panel on Investing in Health. Potential benefits in cross-border co-operation with a focus on service configuration in border regions and priorities for actions at EU level were identified. Moreover, research into evaluating and finding joint solutions for health care cooperation in border regions (EUREGIO I & II) was performed.

Results

Some areas of cross-border cooperation such as infectious disease monitoring, HTA, or mutual recognition of prescriptions and professional diplomas are already quite advanced. Others, such as the reference networks are about to be established while some areas such as the research funding, eHealth or best practice exchanges need to be revised to be of relevance to policy makers. Cooperation in areas such as health system performance assessment, quality of care and patient safety should be considerably strengthened. Increased co-operation could lead to more convergence in health systems development, like the development of a minimum set of patient rights and a common minimum basket of health care benefits in each member state.

Conclusions

While pure patient mobility may be regarded as a ‘non-issue’ given its overall scale and practical relevance the directive is seen as a potential ‘driver’ for EU health policy keeping MS accountable for certain health policies.

1.C. Regular workshop: Ethnic minority people seeking cross-border healthcare in the country of origin

Organised by: Department of Public Health, Academic Medical Centre, University of Amsterdam, Amsterdam, The Netherlands
Contact: a.sekercan@amc.nl

Chairs: Marie-Louise Essink-Bot, Oliver Razum

Recent research provided evidence for substantial cross-border healthcare consumption by people of non-Western ethnic origin residing in Western Europe, especially in the country of origin. However, the knowledge about the scope, reasons or consequences of this type of cross-border healthcare use by people of non-Western ethnic origin is still limited. Currently, 4% (20.7 million) of the total European Union population is of non-European ethnic origin, and in Northern European countries this number is as high as 23%. Of those visiting their country of origin, up to 21.5% make use of healthcare during their stay Şekercan 2014). This workshop will address cross-border healthcare consumption by ethnic minority people, especially but not exclusively in their country of origin, and provide a platform for researchers and policy makers from European countries to discuss scientific evidence and views on cross-border care. We will identify the most important knowledge gaps and explore opportunities for European research collaboration.

Layout of the workshop

After a general introduction by one of the chairpersons, we will have five brief introductory presentations with the possibility for one or two questions from the audience after each presentation:

1. Aydın Şekercan (The Netherlands) will present healthcare consumption by ethnic minority people in their country of origin and the relation with migration generation.
2. Line Neerup Handlos (Denmark) will present how elderly, chronically ill Bosnians use cross-border healthcare in the country of residence and origin.
3. Nicoline Lokdam (Denmark) will present a qualitative study of motives for use of cross-border healthcare among residents of non-Western ethnic minority origin residing in Denmark
4. Hürrem Tezcan-Güntekin will give us insights in the healthcare practices of migrants in transnational social spaces: retired circular migrants living between Germany and Turkey.
5. Seval Akgün (Turkey) will provide a talk on medical tourism in general and the progress during last years in Turkey. She will shed some light on cross-border healthcare consumption by residents of Turkish origin living in Western Europe from the perspective of the country of origin.

There will be ample time for discussion with the audience. Questions for discussion include:

(a) Non-Western ethnic minority people seeking care in their country of origin: what’s the fuss? Is there a problem?
(b) Which knowledge gaps should get priority in research?
(c) What will the future bring?

Added value of organising the workshop

-Focus on a contemporary subject

-Summary of the most recent views about this subject

-Possibility for researchers of this subject to get acquainted with each other and discuss collaboration opportunities

Key messages

- In European countries, up to 21.5% of citizens of ethnic minority origin consume healthcare in their country of origin (HCCO)
- Consequences of HCCO on health and continuity of care are unknown

Healthcare consumption by ethnic minority people in their country of origin and the relation with migration generation

Aydın Şekercan

A Şekercan[1,2], *M Lamkaddem*[1], *MB Snijder*[1], *RJG Peters*[2], *M Essink-Bot*[1]
[1]Department of Public Health, Academic Medical Centre at the University of Amsterdam, Amsterdam, TheNetherlands
[2]Department of Cardiology, Academic Medical Centre at the University of Amsterdam, Amsterdam, The Netherlands
Contact: a.sekercan@amc.nl

Background

International studies suggest that many ethnic minority citizens use healthcare in their country of origin (CO). In the Netherlands, 12% of the population is of non-Western ethnic origin. A previous study showed that ethnic minority elderly use healthcare in the CO during holidays. Healthcare consumption in the country of origin (HCCO) may be appropriate, but might also have consequences, negatively affecting the patient-provider relationship.

Methods

Data from the Healthy Life in an Urban Setting study were used on the magnitude, types, self-reported reasons and determinants of past-year HCCO. Respondents of African Surinamese (n = 3144), South-Asian Surinamese (n = 2655), Ghanaian (n = 2320), Moroccan (n = 3000) and Turkish (n = 3962) origin were included (2011-2014). Descriptive and logistic regression analyses were used to investigate the extent and reasons for HCCO.

Results

Turkish respondents reported the highest HCCO (21.5%) compared to Moroccan (9.8%), Ghanaian (6.7%), African Surinamese (4.3%), and South-Asian Surinamese (2.9%) respondents. HCCO was not limited to the first migration generation. Participants mainly visited outpatient clinics, pharmacies or health centres. The main stated motivations were healthcare for illness, discontent with care in the residence country, and seeking second opinions. Health status, cultural distance to the Dutch healthcare system, and Turkish origin were all independently associated with HCCO.

Conclusion

This is the first study focussing on HCCO of citizens of a European country of non-Western ethnic origin. Further research is needed to clarify the typical orientation and high rates by Turkish respondents, and to explore the consequences for health and healthcare utilisation in the country of residence.

Key message

- HCCO is considerable and not primarily limited to one migration generation

Use of cross-border healthcare among elderly, chronically ill Bosnians who reside or have resided in Denmark

Line Neerup Handlos

LN Handlos
Research Centre for Migration, Ethnicity and Health, Department of Public Health, University of Copenhagen, Copenhagen, Denmark
Contact: lnha@sund.ku.dk

Background

The motives for cross border healthcare as well as the characteristics of those who obtain cross-border healthcare are important to understand, as these patients constitute an important part of patients who seek healthcare in Denmark. This study explores the use of cross-border healthcare among elderly, chronically ill Bosnian migrants who live or have lived in Denmark. This group is of special interest due to its relatively significant size.

Methods

Semi-structured interviews were conducted with 43 chronically ill and elderly Bosnians during winter and spring 2013/2014. The informants were between 55 and 85 years of age and 44% were women. They were all suffering from one or more chronic diseases.

Results

The elderly, chronically ill Bosnians who were residing in Denmark lived somewhat transnational lives, which included extensive contact with family members all over the world and long and frequent vacations in Bosnia. During these vacations some used healthcare services in Bosnia. This seemed mostly to be due to convenience, as the main reason for attending a doctor during vacation was acute matters. Only few used healthcare services in Bosnia for planned matters. An example of a planned use of health care service in Bosnia was the use of recreational centres since use of them was not covered by insurance and the fact that they were cheaper in Bosnia made them more attractive than their Danish counterparts.

Conclusion

The transnational lives lived by the elderly, chronically ill Bosnians resulted in many opportunities for obtaining healthcare in their country of origin. This opportunity was mostly used when acute needs occurred during stays in Bosnia.

Key messages

- No advantages (such as familiarity or availability) were mentioned for the use of healthcare in Bosnia
- A few cases reported economic incentives as a motive

Use of healthcare services in the region of origin among patients with an immigrant background

Nicoline Lokdam

N Lokdam[1], *M Kristiansen*[2], *LN Handlos*[2], *ML Norredam*[1,2]
[1]Section of Immigrant Medicine, Department of Infectious Diseases, Copenhagen University Hospital, Hvidovre, Denmark
[2]Danish Research Centre for Migration, Ethnicity and Health, Department of Public Health, University of Copenhagen, Denmark
Contact: gqn260@alumni.ku.dk

Background

In Denmark, immigrants have been shown to have a higher use of healthcare services abroad. Since this use can have an impact on both the individual patient and the healthcare system in the country of residence, research into underlying reasons for this use is of increasing relevance. This study therefore investigates what motives patients with an immigrant background have for seeking healthcare services in their region of origine.

Methods

The study was based on semi-structured interviews with 10 patients who had an immigrant background, primarily from Turkey and the Middle East, recruited at a clinic of immigrant medicine in Denmark. The interviews were analysed thematically to elucidate motives for seeking healthcare services abroad, with focus on push and pull factors.

Results

Four motives for seeking healthcare in the region of origin were found: the perception of availability, in terms of quantity and access; familiarity, conceptualised as feeling comfortable within the healthcare system; the perception of quality of services; and finally, the perceived need for a second opinion. All motives emerged both as push and pull factors, motivating immigrants to explore healthcare services in their country of origin. Affordability did not emerge as an independent motive but influenced the other factors.

Conclusion

The use of healthcare services abroad by patients with an immigrant background constitutes active health-seeking behaviours, shaped by a range of factors. This is perceived to be limiting access to high-quality services in Denmark.

Key message

- The most important motives, regarded as push as well as pull factors, for seeking healthcare services in the region of origin are availability, familiarity, quality and the need for a second opinion

Healthcare Practices of Migrants in Transnational Social Spaces: Retired Circular Migrants Living between Germany and Turkey

Hürrem Tezcan-Güntekin

H Tezcan-Güntekin, B Bilecen
Department of Epidemiology and International Public Health, Faculty of Public Health University of Bielefeld, Bielefeld, Germany
Contact: huerrem.tezcan@uni-bielefeld.de

Background

Studies on healthcare of migrants usually focus on their problems including mental health, psychosomatic complaints, assuming that they only use the healthcare services of the host country. As migrants may also use healthcare services in their home countries, we examine empirically the influence of being subject to different healthcare services on migrants' consumption of medicine.

Methods

The study was based on 10 qualitative interviews conducted with older, retired migrants with circular movements, living in both Germany and Turkey, and who live in their country of origin more than 3 months.

Results

The participants choose to consult their family doctors, get their prescriptions, and get surgery primarily in Germany, because of their formal healthcare entitlements in the country of residence. Only during emergency cases they tend to use formal healthcare services in Turkey. The analysis showed that participants use a high number of different medicines, and complain about polypharmacy. Irregularities in medication prescription and intake occur, because they spend their time in two countries with different medication prescription guidelines and differences in medication availability.

Conclusion

The participants chose to utilise healthcare in Germany and only during emergency cases they tend to use formal healthcare services in Turkey. Irregularities in medication prescription and intake occur due to differences in both healthcare systems. Moreover, participants rely on their informal ties to receive their medicine from Germany when living in Turkey.

Key messages

- Healthcare services in the country of origin are mostly consulted during emergency cases
- Healthcare use in the country of origin can lead to irregularities in medication prescription and intake

Medical tourism in Turkey: past, present, and future

Seval Akgün

S Akgün
Department of Public Health, Başkent University School of Medicine, Başkent University Hospitals Network, Ankara, Turkey
Contact: sevalak2007@gmail.com

Currently, Turkey is ranked 6th in tourism with almost 40 million foreign tourists a year coming to Turkey. Since, there is a strong influx of tourists, Turkey has the potential and goal to become a prominent in health tourism.

The number of international patients who prefer Turkey's healthcare service is increasing every year. Since 2010, there is a significant increase in the number of international patients per year who utilised healthcare in Turkey. In 2011, this number was around 160.000, which rapidly rose to around 265.000 in 2012. Particularly private hospitals contributed to this increase and are currently good for 83% of the medical tourism market. Furthermore, the majority of treatments are performed by JCI accredited hospitals. This is probably one of the main reasons for medical tourists to utilise healthcare in Turkey, since accreditation guarantees a minimum quality of service.

Turkey aims to be the leading country in medical tourism in the goals of 2023 with an estimation of 2 million medical tourists and a estimated revenue of 20 billion USD a year by providing legal frameworks and development stimulation plans for large and well-equipped hospitals that can compete with European standards in beneficial geographical positions. This presentation will be a preliminary attempt to examine a contemporary elaboration on the rise of 'medical tourism' in Turkey, where tourism is deliberately linked to direct medical intervention.

Key message

- New health development plans focus on developing, advertising and creating attraction regarding healthcare consumption in the country of origin. Therefore, the perceived improvement of quality of healthcare in the country of origin and ease of access to specialty care may be important pull factors to use healthcare in the country of origin

1.D. Round Table: Mobilizing EU Structural Funds to promote equal access to health care for the most marginalized: the Roma case study

Organised by: OSF Public Health Program
Contact: alina.covaci@opensocietyfoundations.org

Chair: Alina Covaci

The 2015 EUPHA conference aims to promote cooperative and inclusive health actions that connect European policies to national, regional and local practices. This roundtable contributes to the debate on the effective use of European Union (EU) Structural Funds to address social inequalities and exclusion in Europe by exploring the most effective ways to mobilize funds for promoting access to health care for the most marginalized, drawing on the experiences of advocates working on Roma health and rights.

Speakers invited by the Open Society Public Health Program will discuss their advocacy work with national and European authorities to make health and access to health care for vulnerable groups a key priority for EU Structural Funds investments. The speakers will also discuss efforts underway to prevent the misuse of Structural Funds through investments that perpetuate segregation and inequalities among Europe's most marginalized populations. Mr Deyan Kolev from Center Amalipe, Bulgaria and Mr Daniel Radulescu from the Roma Center for Health Policies Sastipen, Romania will provide their insights into Roma civil society efforts to increase the allocation of Structural Funds for targeted Roma health programs and to involve Roma in the design, implementation and evaluation of these programs. Ms. Desislava Georgieva, state expert in Programming and Planning unit, Ministry of Labor and Social policy and Mr. Andor Ürmös from the Directorate-General for Regional Development within the European Commission, will share positive examples of the use of Structural Funds to promote equality of opportunity and the inclusion of marginalized groups into the health system. Martin McKee – Professor at London School of Hygiene and Tropical Medicine, London, UK will take few minutes to introduce the topic.

Panel discussants:

Martin McKee – Professor at London School of Hygiene and Tropical Medicine, London, UK (intro)

Deyan Kolev, Chair, Center for Interethnic Dialogue and Tolerance Amalipe, Veliko- Turnovo, Bulgaria

Daniel Radulescu, Executive Director, Roma Center for Health Policies Sastipen, Bucharest, Romania

Ms. Desislava Georgieva, state expert in Programing and Planning unit, Ministry of Labor and Social policy, Bulgaria

Andor Ürmös, DG REGIO, European Commission

1.E. Regular workshop: A policy game intervention for fostering the development of local health policies: 3 EU cases

Organised by: Tranzo, Tilburg University and REsearch into Policy to Enhance Physical Activity (REPOPA) project
Contact: h.p.e.m.spitters@tilburguniversity.edu

Chair: Ien van de Goor

Background

To enhance inter sectoral evidence-informed policy making at the local level it is crucial that stakeholders learn about each other's role and position, knowledge and expertise. Research evidence and other evidence is exchanged more easily between stakeholders when they are familiar with each other's roles, positions and interests and work together in organizational structures or networks. Among stakeholders from different sectors these relations or networks not always are self-evident and thus important for implementing evidence-informed integrated local health policy. A policy game intervention can help create such mutual understanding, appreciation and collaboration between stakeholders involved in a local setting. In2Action is a policy game developed and pilot-tested for this purpose within a FP7 project (www.repopa.eu, contract No. 281532) in three EU country cases: in Cluj-Napoca, Romania; Elsinore, Denmark and Roosendaal, the Netherlands.

Aims of the workshop:

The workshop aim is two-fold. First, a knowledge share part describing the development of the In2Action intervention and presenting results of the policy game intervention. Second, an interactive part where the methodology of (developing and conducting) a policy game will be presented followed by participants taking part in some main components of the policy game in order to experience a policy game and reflect on their experiences and share their thoughts of this intervention.

This workshop consists of three parts which are described in three independent abstracts, having the following main topics:

1. Offering an intervention method for both local and regional level to enhance evidence-informed inter sectoral policy making. Getting to know a policy game and its applicability in Health Enhancing Physical Activity (HEPA) policy development, by focusing on developing, conducting and evaluating such a game. Emphasizing on the improvement of collaboration and use of evidence in the policy process.
2. Presenting components of the policy game methodology and acquiring a first-hand experience with components of the policy game which raises participants' understanding of the interaction and dynamics of this policy game intervention when played together in a real life setting.
3. Presenting the most important results, drawn from questionnaire data, of the policy game intervention in each of the three EU country cases and presenting the most relevant comparative results.

Key messages

- Development of an international policy game is a complex process, but the methodologies used towards a final policy game have great potential of participants' understanding of the policy process
- Policy games have the potential to increase insight in policy processes, including stakeholders' roles, attitude towards extended collaboration and use of knowledge, with differences between countries

A policy game intervention to enhance collaboration between stakeholders in local policy development

Hilde Spitters

HPEM Spitters[1], CJ Lau[2], P Sandu[3], A Dorgelo[4], LAM van de Goor[1]
[1]Tranzo, Tilburg University, Tilburg, The Netherlands
[2]Research Centre for Prevention and Health, Glostrup, Denmark
[3]Center for Health Policy and Public Health, Institute for Social Research, College of Political, Administrative and Communication Sciences, Babes-Bolyai University, Cluj-Napoca, Romania
[4]CBO, Utrecht, The Netherlands
Contact: h.p.e.m.spitters@tilburguniversity.edu

Background

The generic policy game In2action was developed to stimulate collaboration between identified stakeholders at local level in three cases in EU countries: The Netherlands, Denmark and Romania. Development and implementation of public health policy increasingly takes place at local level, involves many different stakeholders, each with own goals and interests, and evidence is hardly being used in inter sectoral public health policy making. This urges for an intervention that enhances networking and collaboration of stakeholders involved. A policy game could be an effective intervention to stimulate the exchange of evidence among stakeholders in real life policy making, as it may enhance stakeholders' insights in each other's roles, positions and leadership issues, as well as inter sectoral collaboration. Hence, it provides an appropriate approach for dealing with increasing complexity of decision-making in networks.

Methods

A policy game is a structured simulated role-play game situated in a real life setting. It combines systems analysis, simulation techniques, scenario building, role-play and the structures of group techniques.

Results

This part of the workshop presents the policy game as it is developed and applied in the three country cases. The first step was conducting a systems analysis in order to identify crucial stakeholders, their roles, positions and relations within the policy process. The systems analysis provided the elements to address in the game in order to stimulate collaboration between stakeholders. From the systems analyses core elements were extracted to form the building blocks of the generic policy game, such as a script to design a policy plan and stakeholders' role descriptions.

Conclusions

A generic policy game was developed and conducted in three EU countries. Within each of the three countries adjustments in the building blocks were made to make the generic game applicable to the local cases' context.

What is a policy game about? Insights in components of how to conduct a policy game by experience

Petru Sandu

P Sandu[1], D Rus[1], CJ Lau[2], HPEM Spitters[3], RM Chereches[1], LAM van de Goor[3]

[1]Center for Health Policy and Public Health, Institute for Social Research, College of Political, Administrative and Communication Sciences, Babes-Bolyai University, Cluj-Napoca, Romania

[2]Research Centre for Prevention and Health, Glostrup, Denmark

[3]Tranzo, Tilburg University, Tilburg, The Netherlands

Contact: petru.sandu@publichealth.ro

Background

A policy game is an intervention aimed at addressing complex issues of the policy development processes that require clarification of goals, roles, and relations within and between organizations. The aim of this presentation is to elaborate on the process of developing and conducting an international policy game. Participants will experience in a nutshell some of its elements and gain insights in how policy games may facilitate the development of more evidence-informed inter sectoral local health policies.

Methods

A demonstration of game elements in interaction with participants, as players, will be conducted, followed by a plenary discussion on the experiences and participant's feed-back. In more detail, reflections will be on performing a policy game, including (1) stakeholders roles and relations in the policy process, (2) the collaboration process, (3) the interaction and dynamics of this policy game intervention.

Results

First, experience with a policy game will increase participants' understanding of the dynamics and potential impact of a policy game intervention. Workshop participants will get insight into the policy game development process and conducting a game, by getting examples of different stakeholders' interaction, present in the local policy development.

Conclusions

A policy game methodology can be used as a research tool and an intervention for exploring the benefits of increased stakeholders' collaboration for the development of more evidence informed inter sectoral policies.

Impact of the policy game In2action on insight and attitude towards intersectoral policy processes in real life policy making: questionnaire results from game participants in three EU country cases

Cathrine Juel Lau

CJ Lau[1], C Glümer[1], HPEM Spitters[2], P Sandu[3], D Rus[3], L Eklund Karlsson[4], LAM van de Goor[2]

[1]Research Centre for Prevention and Health, Glostrup, Denmark

[2]Tranzo, Tilburg University, Tilburg, The Netherlands

[3]Center for Health Policy and Public Health, Institute for Social Research, College of Political, Administrative and Communication Sciences, Babes-Bolyai University, Cluj-Napoca, Romania

[4]Unit for Health Promotion Research, University of Southern Denmark, Esbjerg, Denmark

Contact: cathrine.juel.lau@regionh.dk

Background

To explore whether the policy game In2Action changes insight and attitude towards inter sectoral policy processes, such as the organization network, collaboration, and use of knowledge in real life health enhancing physical activity (HEPA) policy making in three European countries.

Methods

The Netherlands (NL), Denmark (DK) and Romania (RO), have carried out a policy game in a real life setting at local level, with 6 months intervals, including 18–19 stakeholders in each game. The data was collected using a structured questionnaire one week after the implementation of the game. Participants were asked whether the game had changed their insight or attitude.

Results

Response rate was 83%, 89% and 89% in NL, DK and RO respectively. Across countries the majority of participants, at least 60%, enhanced their understanding of the local HEPA policy process, the roles in the organization network, and how stakeholders can collaborate as result of the game. Most participants perceived change in insight of the collaboration process in NL (100%). The fraction of participants who enhanced their insight to leadership aspects of their organization network varied across aspects of leadership and across countries, from at least 14% in NL to 86% in RO. Most participants perceived an increase in insight in leadership aspects in RO (86%). The fraction of participants being more positive towards the use of knowledge varied across countries, 25% in NL to 75% in DK. Most participants perceived change in attitude towards use of knowledge in DK (75%). Across countries the majority of participants stressed 'importance of collaboration' as the main learning experience.

Aim

We encountered changes at the domains 'organization network', 'collaboration', 'leadership' and 'use of knowledge', with differences between countries. These differences may be a result of differences in the potential for change in the game participant groups and game processes across countries.

1.F. Oral presentations: Methodology, monitoring and reporting

Risk factors for multimorbidity: A multilevel analysis of a longitudinal cohort from Scotland

Kathryn Skivington

K Skivington, SV Katikireddi, AH Leyland, K Hunt, S Mercer

Institute of Health and Wellbeing, University of Glasgow, Scotland

Contact: kathryn.skivington@glasgow.ac.uk

Background

Multimorbidity (2+ chronic conditions) is increasing across Europe. Little is known about risk factors for its onset across the lifecourse. We aimed to investigate the relationships between different dimensions of socioeconomic position and health behaviours with future multimorbidity (MM).

Method

Data were from the Twenty-07 study (1987-2007), which employed a two-stage stratified random sample from three cohorts (baseline age 15, 35, 55). Multilevel logistic models were constructed with three levels: measurement points (n = 10,455), within individuals (n = 3,394), within sampling units (n = 62). The relationship between baseline health behaviours (smoking, alcohol, diet, exercise and Body Mass Index), socioeconomic position (income, social class and area deprivation) and MM was modelled, adjusted for age, sex, cohort, and pre-existing MM.

Results

Odds of MM were higher for females compared to males (OR 1.32, 95% CI 1.15-1.51) and odds of MM increased with age (OR 1.11, 95% CI 1.10-1.12). In the fully adjusted model, odds of MM were increased for smokers compared to non-smokers (OR 1.38, 95% CI 1.20-1.60); for those with BMI 30–35 (OR 1.57, 95% CI 1.22-2.01) and >35 (OR 2.21, 95% CI 1.40-3.48) compared to BMI 20–25; for those with poor diet (OR 1.28, 95% CI 1.05-1.57); and for those in the lowest compared to highest income tertile (OR 1.29, 95% CI 1.03-1.54). After controlling for individual-level measures of socioeconomic position and health behaviours, area-level deprivation remained significantly associated with MM: odds of MM were higher for those in the most compared to least deprived areas (OR 1.31, 95% CI 1.04-1.64).

Conclusion

Our study adds to scarce longitudinal evidence, demonstrating the relationship between MM, socioeconomic position and modifiable health behaviours. Prevention efforts, including but not limited to individual-level efforts, earlier in the lifecourse may reduce the future burden of MM, which currently affects 24% of the Scottish population.

Key messages

- Deprivation and health behaviours are important predictors of multimorbidity
- Public health efforts to modify the social determinants and foster healthy lifestyles may reduce multimorbidity

Social mobility and health in European countries: does welfare regime type matter?

Ines Campos-Matos

I Campos-matos[1], *I Kawachi*[2]
[1]Department of International Public Health and Biostatistics, Nova University of Lisbon, Lisbon, Portugal
[2]Department of Social and Behavioral Sciences, Harvard School of Public Health, Boston, Massachusetts, USA
Contact: ines.matos@ihmt.unl.pt

Health inequalities pose an important public health challenge in European countries, despite measures put into effect to mitigate them. Studies have tried to explore which welfare regime is more effective in mitigating health inequalities, but results have been contradictory, as these appear to show that more egalitarian states do not necessarily show more health equality. Increased social mobility has been put forward as a possible explanation for this 'paradox', as health status could 'select' individuals into social strata, thus increasing health inequalities, with the corollary being that welfare regimes that facilitate social mobility would also have more health inequalities.We sought to explore how the relationship between social mobility and self-rated health (SRH) varies among welfare regimes in the European region. Data from the 2002–2012 waves of the cross-sectional European Social Survey was analyzed using multilevel statistical techniques, stratified by welfare regime. Social mobility was defined as the discrepancy between parental and offspring education. We found that upwardly mobile individuals had between 23 and 44% lower odds of reporting bad or very bad SRH when compared to those who remained stable, whereas downward social mobility was associated with 20 to 51% higher odds. Downward (upward) social mobility was associated with bad (good) health in all European welfare state regimes. However, the absolute difference was considerably smaller in countries with the Scandinavian welfare regime type, suggesting that this model is more effective in mitigating the impact of downward social mobility on health and/or of health on mobility. As a result, the paradox of high health inequalities in European countries does not seem to be explained by social mobility in our analysis.

Key messages

- Countries with the Scandinavian welfare regime seem to be the most effective in separating health from social mobility when compared to other European welfare regime types
- High health inequalities in European countries do not seem to be explained by increased social mobility, even in the most generous welfare regimes

Trends in educational inequalities in site-specific cancer mortality among Belgian men: 1990s-2000s

Katrien Vanthomme

K Vanthomme, H Vandenheede, P Hagedoorn, S Gadeyne
Interface Demography, Department of Social Research, Faculty of Economic and Social Sciences and Solvay Business School, Vrije Universiteit Brussel, Brussels, Belgium
Contact: Katrien.Vanthomme@vub.ac.be

Background

According to the 'fundamental cause theory', emerging knowledge on health-enhancing behaviours and technologies results in persisting and even widening health disparities, since higher educated people benefit more from this knowledge. As for cancer, prevention and treatment have improved substantially in recent decades, likely resulting in widening disparities. This study aims to assess socioeconomic inequalities in site-specific cancer mortality in Belgian men, and to examine to what extent these inequalities have changed over time.

Methods

Data were derived from record linkage between the Belgian census of 1991 and 2001 and register data on mortality and emigration for 01/03/1991-31/12/1997 and 01/10/2001-31/12/2011. The study population comprised all Belgian men aged 50–79 years at the time of the censuses. Both absolute (age-standardized mortality rates (ASMR)) and relative inequality measures (mortality rate ratios and relative indices of inequality (RII)) have been calculated.

Results

For almost all cancer sites mortality rates dropped significantly between the 1990s and the 2000s. All educational groups showed a decline in cancer mortality, except for pancreas cancer where the ASMR only dropped for high-educated men. Contrariwise, relative educational differences are increasing. In the 2000s, low-educated men are 2.2 times more likely [RII = 2.2 (95%CI 2.1-2.2)] to die from cancer than those with tertiary education compared to 1.8 (1.7-1.9) in the 1990s. Educational inequalities are most pronounced for lung, head and neck, stomach and bladder cancer, resulting in RIIs up to 4.0 for lung cancer. Furthermore inequalities are most widening for lung, head and neck, and pancreas cancer.

Conclusions

Despite decreasing cancer mortality, relative educational inequalities are increasing. Disparities are most pronounced for preventable cancers as suggested by the fundamental cause theory. Policy efforts remain crucial in order to tackle these increasing inequalities.

Key messages

- Despite an overall decreasing trend in Belgian male cancer mortality, relative educational inequalities are widening
- These inequalities and their widening are most pronounced for preventable cancers

Solving research waste with better duplicate detection

John Rathbone

J Rathbone[1], *M Carter*[1], *T Hoffmann*[1], *P Glasziou*[1]
[1]Centre for Research in Evidence Based Practice, Bond University, Gold Coast, Australia
Contact: jrathbon@bond.edu.au

Background

A major problem arising from searching across bibliographic databases is the retrieval of duplicate citations. Removing such duplicates is an essential task to ensure systematic reviewers do not waste time screening the same citation multiple times. Although reference management software use algorithms to remove duplicate records this is only partially successful and necessitates removing the remaining duplicates manually. This time consuming task leads to wasted resources. We sought to evaluate the effectiveness of a newly developed deduplication program against EndNote.

Methods

A literature search of 1988 citations was manually inspected and duplicate citations identified and coded to create a benchmark dataset. The Systematic Review Assistant deduplication module (SRA-DM) was iteratively developed and tested using the benchmark dataset and compared with EndNote's default one step auto-deduplication process matching on ('author', 'year', 'title'). The accuracy of deduplication was reported by calculating the sensitivity and specificity. Further validation tests, with three additional benchmarked literature searches comprising a total of 4563 citations were performed to determine the reliability of the SRA-DM algorithm.

Results

The sensitivity (84%) and specificity (100%) of the SRA-DM was superior to EndNote (sensitivity 51%, specificity 99.83%). Validation testing on three additional biomedical literature searches demonstrated that SRA-DM consistently achieved higher sensitivity than EndNote (90% vs 63%), (84% vs 73%) and (84% vs 64%). Furthermore, the specificity of SRA-DM was 100%, whereas the specificity of EndNote was imperfect (average 99.75%) with some unique records wrongly assigned as duplicates. Overall, there was a 42.86% increase in the number of duplicates records detected with SRA-DM compared with EndNote auto-deduplication.

Conclusions

Systematic Review Assistant deduplication module offers users a reliable program to remove duplicate records with greater sensitivity and specificity than EndNote. This application will save researchers and information specialists time and avoid research waste. The deduplication program is freely available online.

Key message

- Reduce research waste with systematic review assistant's deduplication program

Evaluation of mammography screening in North Rhine-Westphalia using the European reference standard

Jan Heidrich

J Heidrich[1], *HW Hense*[2], *S Weigel*[3], *W Heindel*[3], *O Heidinger*[1]
[1]Epidemiological Cancer Registry North Rhine-Westphalia, Münster, Germany
[2]Institute of Epidemiology and Social Medicine, University of Münster, Germany
[3]Department of Clinical Radiology and Reference Center for Mammography, Medical Faculty and University Hospital Münster, Germany
Contact: jan.heidrich@krebsregister.nrw.de

Background

The aim of mammography screening (MS) is to reduce mortality from breast cancer (BC). Since it takes over a decade to evaluate BC mortality after implementation of MS, the European Commission developed indicators for evaluation that predict a reduction of BC mortality. We evaluated MS in the most populous federal German state over the course of the initial and first subsequent regular screening round.

Methods

Women aged 50 to 69 years in North Rhine-Westphalia (NRW) are invited bi-annually for MS. The MS was introduced in a step-wise manner and fully implemented by 2009. BC was either detected at screening or during the following two years interval using data of the population-based state cancer register. Indicators such as the rate of screening detected and interval cancers, and tumor characteristics were evaluated applying the reference values of the European guidelines (ER).

Results

Among 659.399 and 468.350 participants in the initial and second screening round, respectively, the detection rate of (invasive plus in-situ) BC amounted to 81.8 and 58.8/10.000 women screened, reflecting a ratio of 3.0 (ER $>$ 3.0) and 2.2 (ER $>$ 1.5) of the background incidence (BI). During the post-screening interval, 23.2 (initial) and 21.2/10.000 (second round) interval cancers were observed, corresponding to a ratio of 0.81 (initial) and 0.74 (second round) of the BI (ER $<$ 0.8). Among screening detected BC from initial/ second round, 29.0/ 29.8% (ER $>$ 25/30%) were small tumors ($\leq$10 mm), 31.7/ 27.0% (ER $<$ 30/25%) showed advanced tumor stages (UICC II+), and 83.2/81.7% (ER 80–90%) were invasive cancers. The rate of advanced cancer among screenees decreased in the course of the MS compared with the BI of advanced tumors.

Conclusions

To assess the potential benefit of the MS in the German state of NRW, we identified early surrogate indicators and followed their development over time. Most, but not all, impact indicators are within the target range defined by the ER, indicating that the MS performance meets expectations in terms of quality.

Key messages

- The potential benefit of mammography screening (MS) in the German state of NRW was assessed using indicators from the European guidelines that predict mortality reduction by MS in the population
- Most indicators analysed meet the European targets indicating a high quality and a probable population impact of the mammography screening program in the German state of NRW

Two is better than one: vaccination impact on survival of older adult living in nursing home

Agnese Collamati

A Poscia[1], *A Collamati*[2], *V Collamati*[3], *U Moscato*[1], *E Topinkova*[4], *F Landi*[3], *R Bernabei*[3], *G Onder*[3]
[1]Public Health Department, Università Cattolica del Sacro Cuore di Roma, Italy
[2]Department of Gerontology, Orthopedics and Neuroscience, Università Cattolica del Sacro Cuore di Roma, Italy
[3]MEDLAV Consul, Jesi, Italy
[4]Department of Geriatrics, First Faculty of Medicine, Charles University, Prague, Czech Republic
Contact: agnese.collamati@gmail.com

Globally, seasonal influenza and pneumococcal (I&P) disease account for a substantial number of severe illness each year, with a great impact on hospitalizations and mortality, especially among older people. I&P vaccines have been proved to be effective and safe and have been commonly recommended also for high-risk adults and older adult. This study aims to identify prevalence and outcomes related to these vaccinations in a large European population of frail and old people living in nursing home.

We conducted a cross-sectional analysis of nursing home residents participating to the Services and Health for Elderly in Long TERm care (SHELTER) project, a study collecting information on residents admitted to 57 nursing home in 8 countries. Data were collected using the interRAI instrument for long-term care facilities. Patients were stratified according to the vaccination status (no vaccinations; at least one vaccination; both vaccinations) and Kaplan Mayer curve and adjusted Cox proportional hazards models were used to assess the effect on subsequent mortality.

3900 patients were included in the study; 74.2% were women. The mean (SD) age and follow up was respectively 84,6 (7,7) years and 9.8 (3.8) months. 16.5% of patients weren't vaccinated, 57.1% had at least one vaccination and 26,4% were immunized both against I&P. Overall 727 (20,7%) residents died. After adjusting for potential confounders, which included age, sex, comorbidities, depression and ADL, patients with both vaccinations showed the highest reduction in all cause of mortality (HR = 0,64; 95%CI 0,51-0,81) compared to those without any vaccination. In addition, also patients with at least one vaccination have shown a significant mortality reduction (HR = 0,74 95%CI 0,61-0,89).

In a population of older adult living in nursing home I&P vaccinations were associated with a reduction in all cause mortality. I&P vaccines showed beneficial synergistic effects.

Key messages

- Influenza and pneumococcal vaccination can improve the health of older adults population
- Patients with both influenza and pneumococcal vaccination take the highest advantage in terms of mortality reduction

1.G. Round table: Context matters: Exploring the role of context in public health intervention research

Organised by: National Institute for Health Research (Public Health Research Programe) and Canadian Institutes of Health Research
Contact: sarah.viehbeck@uottawa.ca

Chair: Sarah Viehbeck

Population health interventions (PHIs) include policies, programs and resource distribution approaches within or beyond the health sector, and aim to affect the underlying conditions that shape the number and distribution of people at risk of health and social inequities. It is often said that 'context matters' to these interventions - why they were implemented in the first place, how they were or were not adapted or implemented with fidelity, and what the possible interactions are between context(s) and intervention outcomes. Research that fulsomely characterizes context could improve our understandings of why intervention effects vary within and across contexts.

The Canadian Institutes of Health Research-Institute of Population and Public Health and the National Institute for Health Research-Public Health Research Programme are national research funding bodies that share an interest in advancing the evidence-base underpinning and resulting from public health interventions, including how and why such interventions work (or not), for whom, under which circumstances, and for what cost.

Through three short presentations and structured dialogue with the audience around discussion questions, this workshop will explore the role of context in public health intervention research by sharing results of two background papers prepared for each of the research funding bodies in England and Canada and engaging in an exchange with the audience about a possible guidance document attending to context and public health interventions (modelled on the UK Medical Research Council Guidance of Complex Interventions).

Through this workshop, we aim to:

1. Provide an overview of findings from recent background papers that examine the role of context in public health intervention research;
2. Discuss implications for this work in the design of future funding opportunities and/or journal reporting guidelines; and,
3. Engage in debate and dialogue with the audience regarding the critical features of context and the potential for guidance in this area.

The value-add of the workshop format is that exchange with the audience will directly inform future work of two national research funders interested in advancing the science of public health intervention research and evaluation. In particular, this workshop will inform the design of future guidance planned for development by these funders.

Key messages

- Given the different contexts within public health in Europe, it is critical to develop a careful understanding of the interactions between context(s) and intervention outcomes
- Context is too important to public health policy and program implementation and outcomes to be simply 'controlled' for

The context for reporting on context in public health: An analysis of existing guidance and guidelines

Sarah Viehbeck

S Viehbeck, E Di Ruggiero, N Edwards
Canadian Institutes of Health Research-Institute of Population and Public Health, Ottawa, Canada
Contact: sarah.viehbeck@uottawa.ca

Background

Research funders and journals play a role in setting agendas for what priority-driven research is conducted, peer-reviewed, and reported. Given the multiple research designs, disciplinary perspectives, and intersectoral interventions at play within the field of public health intervention research, navigating the influences on what and how research is conducted and reporting requirements can be complex. Existing guidance and peer review criteria from research funding councils and guidelines for journal reporting are important sources to examine to understand whether and how context is or is not addressed in these documents.

Methods

A document review and analysis was conducted of existing and relevant Medical Research Council Guidance (n = 4 documents) and journal reporting guidelines (n = 5) to determine the extent and nature of how features of context are or are not attended to in these resources.

Findings

More recent MRC guidance (Updated Guidance on Complex Interventions and Guidance on Process Evaluations for Complex Interventions) mentions context more frequently and with more detail than earlier guidance (Original Guidance on Complex Interventions and Guidance on Natural Experiments). In these documents, context is characterized as being more than the setting in which the intervention is unfolding, though that is noted as important, and is discussed as being related both to intervention implementation and intervention outcomes. Journal reporting guidelines (STROBE, CONSORT, TREND, PRISMA) discuss context as background for studies, placing results within the context of other literature, or study setting/timing. PRISMA-E is more explicit about elements of context, likely given its focus on equity issues in reviews and meta-analyses.

Conclusions

Given that one outcome of this workshop is to inform possible standalone guidance on context and public health intervention research, an understanding of existing guidance and guidelines is foundational.

Going beyond 'context matters' to propose how and why context influences public health interventions

Jean Shoveller

J Shoveller, R Knight, K Thomson, D Greyson
School of Population and Public Health, University of British Columbia, Vancouver, Canada
Contact: jean.shoveller@ubc.ca

Introduction

Context affects the development, implementation, processes and outcomes of public health interventions (PHIs), yet questions remain as to how and why context matters to PHIs. To advance the science of 'context' within the field of PHI research, we conducted a scoping review of recent empirical literature regarding the interactions between context and PHIs.

Methods

We searched MEDLINE for recently published (2012-2013), English-language articles indexed with both the subject heading 'intervention research' and the keyword 'context,' limiting the scope to 10 high-impact journals in population and public health. The search yielded 21 articles. We extracted data on: (a) population(s) of interest; (b) description of the population health intervention(s); (c) conceptual definitions of context; (d) operationalization of context; (e) hypothesized pathways and mechanisms through which the PHI influenced health; and (f) descriptions of interactions between PHI and context.

Results

In included studies, there were few examples where context was operationalized in robust ways. Context was often described as something that needs to be 'controlled for' or 'adjusted out' of the analysis - and, often as a strategy to help explain intervention 'failure'. The literature included in this review also did not address in any depth the hypothesized pathways and mechanisms through which PHIs influence health.

Conclusions

There is a need for new theoretical and methodological work that takes up the challenges of studying 'Context x Intervention' interactions that genuinely and deeply respond to the notion that 'Intervention = Intervention x Context'. Research funders could support new science to reveal how features of context might substantially alter the potential benefits of PHIs. Journals should require intervention research to describe important features of 'context x intervention interactions' and insist on more precise language to avoid conflating context with setting.

The role of change agents in addressing context: Examples from The National Institute for Health Research

Phil Taverner

PJ Taverner
National Institute for Health Research-Public Health Research Programme, Southampton, UK
Contact: phil.taverner@nihr.ac.uk

Background

The National Institute for Health Research (NIHR) funds the evaluation of public health interventions outside of health care settings via its Public Health Research (PHR) programme. Most of the interventions in question are run by local government. Almost none of these interventions will work in exactly the same from one local area to the next. Each area will adapt the intervention to its own political, demographic, social or environmental requirements. In a real world setting, individual interventions exist as part of a much wider system. The context in which they operate, therefore, is all-important, presenting a particular challenge to funders, researchers and local policy makers alike.

Methods

In a joint project with the Canadian Institutes of Health Research and colleagues in Canada, the PHR programme commissioned a report into the importance of context, with a view to producing guidelines to help all concerned find ways of meeting this challenge. Profs Laurence Moore and Mark Petticrew reviewed existing literature on the subject and produced a number of practical recommendations. This presentation will share these recommendations and promote discussion on how they can be put into practice by research users, funders and researchers.

Results

Topics covered include:

-Identifying underlying mechanisms behind interventions and the portability of these mechanisms
-Interventions as 'perturbations within a dynamic system'
-How to decide which contextual differences matter most
-Systematic reviews and context

Conclusions and 2 main messages: Public health research needs to pay careful attention to the role of context if it is to produce findings of real value to policy makers. This requires, amongst other things, identifying the essential change agents affecting interventions and reconceptualising the context as an integral part of the intervention rather than a potential confounder.

1.H. Oral presentations: Health inequalities in time of crisis

The transfer of the bottom-up approach to tackle health inequalities to seven EU countries

Tatjana Krajnc Nikolić

T Krajnc Nikolić, B Belović
RU Murska Sobota, National Institute of Public Health of Slovenia, Murska Sobota, Slovenia
Contact: tatjana.krajnc-nikolic@nijz.si

Issue

Health inequalities (HI) could be defined as preventable and unjust differences in health outcomes among different SE groups which exist in all countries and between them. The gap in mortality of cardiovascular diseases between new and old member states was identified by EC as indicator of HI. Public health (PH) capacity on regional level was recognised as insufficient. Slovenian PH institute developed bottom-up approach to tackle HI at regional level by means of health promotion.

Problem

Transfer of this approach to seven EU regions and PH capacity building including preparation and implementation of regional strategic plans were main goals of the ACTION-FOR-HEALTH project, co-financed by the EU Health programme during the period 2012–2014. The methods were: situation analysis in seven chosen EU regions using available data, creating partnerships and involving local stakeholders, identification of regional PH priorities, performing workshop and summer school, producing on-line distance learning (DL) and printed learning tools, preparing and implementing strategic plans, which were culturally adjusted and tailored to regional priorities and needs. The main question was whether the generic bottom-up approach can be transferred to diverse cultural and socio-economic environments.

Results

The results were increased PH capacity using participative approach of involved institutions, prepared regional, culturally adjusted strategic plans to tackle HI in each of seven regions and implemented objectives targeting vulnerable groups. DL and printed learning tools contribute to sustainability of results

Lessons

Increased PH capacity, commitment and participation of regional stakeholders, adjustment to regional environment, shared ownership and strategic planning are basic components of the bottom-up approach and can be applied in diverse EU environments.

Key messages

- National policies aimed at HI should be accompanied by continuous and strategic bottom-up approaches on local and regional level, using health promotion as an overall approach and a tool
- The prerequisites to address HI at regional level are: PH capacity, partnerships and strategic plan, adjusted to available resources, culture and needs

Inequalities in mental health across Europe and the role of different types of social protection

Claire Niedzwiedz

C Niedzwiedz[1], R Mitchell[2], J Pearce[1]
[1]Centre for Research on Environment, Society and Health, University of Edinburgh, Edinburgh, Scotland
[2]Centre for Research on Environment, Society and Health, University of Glasgow, Glasgow, Scotland
Contact: claire.niedzwiedz@ed.ac.uk

Introduction

Social protection spending has important implications for health equity. The mental health consequences of varying levels of spending on different types of social protection are not well understood for different socio-demographic groups. We therefore examined the influence of four types of social protection (unemployment, active labour market programmes, incapacity and family) on inequalities in mental health.

Methods

Individual-level data ($N = 22,397$ aged 25–64 years) were taken from 18 countries participating in the 2012 European Social Survey. Country-level spending on social protection were extracted from the OECD Social Expenditure database. Mental health was assessed using the Center of Epidemiological Studies Depression Scale (CESD8). Data were analysed using random-intercept multilevel linear models. Interactions between social protection and pre-specified socio-demographic variables (education level, gender, employment status and family status) were explored.

Results

Greater spending on active labour market programmes (ALMP) was related to narrower educational inequalities in mental health ($p < 0.001$ for interaction). Among the least educated men, countries with low spending (such as Estonia) had more depressive symptoms (6.53, 95% CI 5.92-7.14), compared to countries with high spending (4.78, 95% CI 3.71-5.85), such as Denmark. Higher spending on ALMP and unemployment was also associated with fewer depressive symptoms among unemployed men, but not women. Greater spending on incapacity was related to fewer depressive symptoms among permanently sick/disabled women and higher spending on family policies was related to narrower gender inequality in mental health.

Conclusions

Mental health inequality is larger among countries investing less in social protection. Among unemployed men, a $100 rise in ALMP spending was related to a 0.45 point decline in depressive symptoms, equivalent to the difference between medium and high education levels.

Key messages

- Austerity policies may have severe impacts on the mental health of disadvantaged groups
- Decisions to alter social protection spending should consider the impact on mental health equity

Men on the margins: trends and inequalities in mortality among young men in Scotland, 1980–2013

Mirjam Allik

E Curnock, M Allik, R Dundas, D Brown, AH Leyland
MRC/CSO Social and Public Health Sciences Unit, University of Glasgow, Glasgow, UK
Contact: mirjam.allik@glasgow.ac.uk

Systematic inequalities in health outcomes between socio-economic groups are recognized as an important issue within national and global health policy. This study analyzes the trends in all-cause and cause specific mortality and inequalities in mortality among Scottish men aged 15–44.

A population-based study was conducted using Scottish mortality and area deprivation data. Trends in internal (with direct links to internal pathology, $N = 18326$) and external causes (due to external actions, $N = 29590$) of mortality were examined over the period 1980 to 2013 and trends in inequalities were examined for the period 2002 to 2013. Inequalities were measured using the slope index of inequality (SII) and the relative index of inequality (RII). Deprivation is measured using the income domain of the Scottish Index of Multiple Deprivation (SIMD).

Mortality rates in Scotland among men aged 15–44 increased between 1995–2007 due to increase in deaths from external causes amongst those living in the most deprived areas. The main contributors to this were suicides, drug and alcohol related deaths. Over the same period mortality from internal causes declined. Between 2007 and 2013 mortality rates fell from both internal and external causes. Inequalities in mortality in 2002–04 were high, with SII at 294 (95% CI = 279–309); 69% due to external causes. For 2011–13 the SII fell to 252 (239–266); 68% due to external causes. The RII remained unchanged; 2002–04: 1.83 (95% CI = 1.74–1.93), 2011–13 1.82 (1.73–1.92) for all cause mortality; 1.27 (1.19–1.34) and 1.24 (1.16–1.31) for external causes. Reductions in inequalities have occurred in alcohol related mortality, the SII decreased from 53 (95% CI = 49–58) to 30 (27–33), and in assaults, the SII fell from 22 (19–24) to 10 (8–11).

Policies to reduce mortality in young men should focus on external causes, suicide and drugs related mortality. Eliminating external causes would have avoided 782 deaths among men aged 15–44 in 2013 and reduce inequalities.

Key messages

- Mortality rates from external causes for Scottish men (15-44) are higher in 2013 than in 1980
- While there has been a reduction in mortality in the last decade inequalities in mortality remain high

Pensions, austerity and unmet medical need among older people

Aaron Reeves

A Reeves[1], M McKee[2], J Mackenbach[3], M Whitehead[4], D Stuckler[1]
[1]Department of Sociology, University of Oxford, Oxford, UK
[2]Department of Public Health and Policy, LSHTM, London, UK
[3]Department of Public Health, Erasmus MC, Rotterdam, Netherlands
[4]Department of Public Health and Policy, University of Liverpool, Liverpool, UK
Contact: aaron.reeves@sociology.ox.ac.uk

Since the onset of the Great Recession in Europe, unmet need for medical care has been increasing, especially in persons aged 65 or older. It is possible that pensions buffer access to healthcare in older persons during times of economic crisis, but to our knowledge this has not been tested empirically in Europe. Here, we evaluate whether greater pension entitlement, which helps reduce old-age poverty and increase affordability of healthcare, reduces the prevalence of unmet medical need in older persons. We also examine whether greater pension entitlement reduces inequalities in unmet medical need across the income distribution and whether the effect of public pensions on unmet need is greater in commodified health systems. We integrated European panel data on 16 EU countries for years 2004–2012 with indicators of pension, unemployment insurance, and sickness insurance entitlement (range 1–20) from the Comparative Welfare Entitlements Dataset and unmet need prevalence rates from EuroStat 2014 edition. Using country fixed-effects regression models, we found that each 1-unit increase in pension entitlement is associated with a 1.11 percentage point decline in unmet medical need among over 65 s (95% CI: −0.55 to −1.66). This association is strongest for the lowest income quintile (1.65 percentage points, 95% CI: −1.19 to −2.10). There was no effect of sickness insurance entitlement ($p = 0.55$), unemployment insurance entitlement ($p = 0.57$), or general government expenditure on health ($p = 0.13$). Importantly, we found consistent evidence that out-of-pocket payments were linked with greater unmet needs, but that this association was mitigated by greater pension entitlement (≥ -1.21 percentage-points, 95% CI: −0.37 to −2.06). Greater public pension entitlement plays a crucial role in reducing inequalities in unmet medical need among older persons, especially in healthcare systems which rely heavily on out-of-pocket payments.

Key messages

- Greater public pension entitlement plays a crucial role in reducing inequalities in unmet medical need among older persons
- The impact of pensions on unmet medical need is particularly strong in countries where out-of-pocket payments for health are high

Access to care in the Baltic States: did crisis have an impact?

Marina Karanikolos

M Karanikolos[1], *VS Gordeev*[2], *JP Mackenbach*[3], *M McKee*[1]
[1]European Observatory on Health Systems and Policies, London School of Hygiene and Tropical Medicine, London, UK
[2]The Centre for Health and Social Change (ECOHOST), London School of Hygiene and Tropical Medicine, London, UK
[3]Department of Public Health, Erasmus MC, University Medical Centre Rotterdam, Rotterdam, Netherlands
Contact: marina.karanikolos@lshtm.ac.uk

Background

In 2009, brief but deep economic crisis profoundly affected the three Baltic States: Estonia, Latvia and Lithuania. In response, all three countries adopted severe austerity measures with the shared goal of containing rising deficits, but employing different methods. In this paper we analyse the impact of the economic crisis and post-crisis austerity measures on health systems and access to medical services in the three countries.

Methods

We use the European Union Statistics on Income and Living Conditions (EU-SILC) data to analyse trends in unmet medical need in 2005–2012, and apply log-binomial regression to calculate the risk of unmet medical need in the before (2009) and after (2012) the crisis.

Results

Between 2009 and 2012 unmet need has increased significantly in Latvia (OR 1.24, 95% CI 1.15-1.34) and Estonia (OR 1.98, 95% CI 1.72-2.27), but not Lithuania (OR 0.84. 95% CI 0.69-1.04). The main drivers of increased unmet need were inability to afford care in Latvia and long waiting lists in Estonia.

Conclusion

The impact of the crisis on access to care in the three countries varied, as did the austerity measures affecting their health systems. Estonia and Latvia experienced worsening access to care, largely exacerbating already existing barriers. The example of Lithuania suggests that deterioration in access is not inevitable, once health policies prioritise maintenance and availability of existing services, or if there is room for reducing existing inefficiencies. Moreover, better financial preparedness of health systems in Estonia and Lithuania achieved some protection of the population from increasing unmet need due to the rising cost of medical care.

Key messages

- Severe economic crisis exacerbated existing barriers to accessing health care services in the Baltic States
- Countries with better health systems' preparedness for economic downturn avoided immediate increase in unmet medical need due to costs of care

Why are alcohol harms high in areas of deprivation? Analysis of linked Scottish data (1995-2012)

Srinivasa Katikireddi

SV Katikireddi[1], *E Whitley*[1], *L Gray*[1], *J Lewsey*[2], *AH Leyland*[1]
[1]MRC/CSO Social & Public Health Sciences Unit, University of Glasgow, Glasgow, UK
[2]Health Economics and Health Technology Assessment, University of Glasgow, Glasgow, UK
Contact: vittal.katikireddi@glasgow.ac.uk

Introduction

Alcohol deaths contribute to health inequalities across Europe but survey data suggest consumption is often not socially patterned. We investigated whether socioeconomic deprivation modifies the relationship between alcohol consumption and alcohol-related harms.

Methods

Data from 50,236 adult participants of the Scottish Health Surveys (SHeS) were linked to deaths, hospitalisations and prescriptions. Respondents were asked about alcohol consumption (units/week, binge drinking) and smoking status; nurses measured body mass index (BMI); and a measure of area deprivation (SIMD) used. The primary outcome was alcohol-related hospitalisation/death (defined using ICD codes). We excluded those ever experiencing drug-related events (e.g. methadone prescription). Associations of deprivation and alcohol consumption with alcohol-related harm were explored using Cox proportional hazards regression and formal tests of interaction between alcohol consumption and deprivation were performed. Downward social selection for high-risk drinkers was investigated by comparing SIMD quintiles over time.

Results

Individuals from more deprived SIMD quintiles had moderately riskier drinking patterns. Alcohol-related harms showed a strong dose-response relationship with SIMD quintile (HR for least versus most deprived quintile: 0.29 95% CI 0.23-0.36). Adjustment for covariates (age, sex, survey wave, smoking status, BMI, alcohol consumption, binge drinking) did not markedly attenuate the gradient. Alcohol consumption-harm associations did not differ by deprivation, indicating no effect modification. There was minimal evidence of social selection, with deprivation categories for high-risk drinkers not changing markedly over time.

Conclusions

The social patterning of alcohol harms cannot be accounted for by differences in consumption patterns, smoking, BMI or social selection. Similar consumption, including for light drinkers, results in consistently greater harm if deprived. Policy approaches to narrow health inequalities cannot rely on abolishing consumption gradients.

Key messages

- Deprivation is associated with far greater alcohol-related harms at similar levels of consumption
- Policy to narrow inequalities in alcohol harms cannot rely on abolishing consumption gradients

1.I. Oral presentations: Burden of communicable diseases in Europe

Ranking infectious disease risks to support preparedness prioritization in the European Union

Jonathan Suk

M Bouwknegt[1], A Havelaar[1,2], R Neslo[3], AM de Roda Husman[1,4], L Hogerwerf[1], J van Steenbergen[1], M Kretzschmar[1,3], M Ciotti[5], A Cassini[5], JE Suk[5]

[1]National Institute for Public Health and the Environment, Bilthoven, the Netherlands

[2]Emerging Pathogens Institute, University of Florida, Gainesville, USA

[3]Julius Centre, Utrecht University, Utrecht, the Netherlands

[4]Institute for Risk Assessment Sciences, Utrecht University, Utrecht, The Netherlands

[5]Country Preparedness Section, European Centre for Disease Prevention and Control, Stockholm, Sweden

Contact: alessandro.cassini@ecdc.europa.eu

Background

Europe has been identified as a hot spot of infectious disease emergence, and myriad factors affect human and zoonotic pathogens. The societal impact of future disease risks will not only depend on pathogen characteristics, but also on the ability of health systems to anticipate and prepare for emerging risks. The need to identify and prioritise emerging risks has thus emerged as an important area for public health action. European Centre for Disease Prevention and Control (ECDC) launched a risk ranking study to identify emerging pathogens that could pose threats to the health and security of the EU.

Methods

The methodology is based on multicriteria decision analysis. Two stakeholder meetings were used to identify and refine criteria to be used in the ranking system. Seven final criteria were grouped into a risk model consisting of four categories: likelihood of pathogen emergence; magnitude of the impact; current level of health system preparedness/resilience to mitigate threats; and public perception.

Expert panels were used for criteria weighting. The final list of criteria and weights was employed by multi-disciplinary panels of experts to score a wide range of infectious diseases. These scores were standardized and analysed, leading to an overall risk ranking.

Results

A novel methodology for the ranking of emerging pathogens was developed. Over 100 experts were invited to participate, representing every EU Member State. The final ranking results (to be available by September, 2015) enables prioritisation of emerging infectious disease threats.

Conclusions

In a rapidly changing world and in situations of incomplete information, sourcing expert knowledge for prioritising public health action may become an increasingly integral component of preparedness planning. Aside from the results of risk ranking studies, the process, which engages multiple disciplines and stakeholders, is an equally and increasingly important component of public health work in the 21st century.

Key messages

- Globalisation, climate change, and other factors can lead to rapid changes in infectious disease transmission
- Public health preparedness, which is predicated upon anticipation and strategic planning, can be strengthened by processes which engage multiple disciplines to prioritise emerging risks

Determinants and Drivers of Infectious Disease Threats in Europe

Jan Semenza

JC Semenza[1], E Lindgren[2], L Espinosa[1], M Svendotter[2], P Penttinen[1], J Rocklöv[3]

[1]European Centre for Disease Prevention and Control, Stockholm, Sweden

[2]Stockholm Resilience Centre at Stockholm University, Stockholm, Sweden

[3]Umea University, Umea, Stockholm, Sweden

Contact: jan.semenza@ecdc.europa.eu

Background

Emerging infectious diseases have triggered international concern. A complex web of interacting drivers has been responsible for infectious disease threat events (IDTE). These drivers can be broadly organized into three categories: globalization and environment; socio-demographic factors; and public health systems. IDTE are routinely monitored at the ECDC as part of epidemic intelligence.

Methods

IDTE recorded between 1 July 2008 and 31 December 2013 were included in this analysis. Drivers of IDTE were extracted from scientific papers and epidemiologic reports and subjected to frequency and multiple logistic regression analyses. The goal was to describe the drivers responsible for IDTE in Europe, in order to accelerate detection and early response to IDTE.

Results

Seventeen underlying drivers of a total of 116 IDTE that met the inclusion criteria were identified. Combinations of interdependent drivers were responsible for the majority of all IDTE, of which two-driver pairs caused half of the IDTE. Globalization and environment was by far the most important driver category in our analysis, contributing to all IDTE groups and to 61% of all individual IDTE. The multiple logistic regression models ranked three globalization and environment drivers in the top five drivers of all IDTE.

Conclusion

In the last few years, the majority of IDTE in Europe can be attributed to globalization and environment as one of the most important driver category. At least in the short-term, swift interventions are paramount, such as rapid case detection, immediate response and comprehensive control measures. The analysis presented here can pinpoint promising intervention entry points such as monitoring these drivers as epidemic precursors of IDTE. Many IDTE are the inevitable consequence of global connectivity and environmental change as we show here; thus, examining and modelling disease drivers can help anticipate future IDTE and strengthen control measures.

Key messages

- Globalization and environment as the most significant driver category
- Monitoring epidemic precursors of disease it may be possible to accelerate the response

Results from the 2015 Burden of Communicable Diseases in Europe (BCoDE) study

Edoardo Colzani

E Colzani[1], A Cassini[1], A Pini[1], G Maringhini[1], D Lewandowsky[2], P Kramarz[1], ME Kretzschmar[3,4]

[1]European Centre for Disease Prevention and Control (ECDC), Stockholm, Sweden

[2]NextPage Software, Delft, The Netherlands

[3]University Medical Centre Utrecht, Utrecht, The Netherlands

[4]National Institute for Public Health and the Environment, Bilthoven, The Netherlands

Contact: edoardo.colzani@ecdc.europa.eu

Background¶

The assessment of the overall burden of disease can provide valuable information for prioritization of public health interventions. The Burden of Communicable Diseases in Europe (BCoDE) is a project led and funded by the European Centre for Disease Prevention and Control (ECDC) and a European consortium, with the purpose of estimating the impact of 32 communicable diseases in the European Union in order to provide a tool to support decision making.

Methods

The burden of disease was estimated for 2009–2013 using Disability-Adjusted Life Years (DALYs). Disease models, incorporating several user-variable parameters, outlining the natural history of each disease were created through literature reviews. Disability weights were derived from a survey of a sample of different European countries. The data source for incidence of acute disease events was The European Surveillance System database (TESSy). Incidence estimates were corrected for under-estimation of notified cases.

Results

Influenza showed the highest impact (71 DALYs per 100,000 population), followed by tuberculosis (53 DALYs per 100,000) and HIV infection (48 DALYs per 100,000). Of the total burden, 72% was due to Years of Life Lost (YLL) and half of the burden was due to sequelae of the acute illnesses. Rabies, listeriosis and the human variant of the Creutzfeldt-Jakob disease had high DALYs per case, mostly due to the acute infection (75%). Respiratory tract infections and sexually transmitted diseases accounted for the highest proportion of overall burden (76%).

Conclusions

Though acknowledging uncertainty deriving from assumptions, underestimation of true incidence of disease, and estimation of specific model parameters, the proposed methodology promotes evidence-based approach to population health description, fosters an overview of surveillance data quality and availability, facilitates the communication of complex information to decision makers and provides a tool for planning and prioritisation.

Key messages

- Respiratory tract infections and sexually transmitted infections showed the highest DALYs in the European Union. Influenza, tuberculosis and HIV were the communicable diseases with highest burden
- The burden of communicable diseases in Europe (BCoDE) project fosters an overview of surveillance data quality and availability and provides a communication tool for planning and prioritisation

Improving usability and communicability of burden of disease Methods and outputs: the BCoDE software

Alessandro Cassini

A Cassini[1], *E Colzani*[1], *D Lewandowski*[2], *MJ Mangen*[3], *S McDonald*[4], *D Plass*[5], *P Kramarz*[1], *ME Kretzschmar*[4,6]
[1]European Centre for Disease Prevention and Control (ECDC), Stockholm, Sweden
[2]NextPage Software, Delft, The Netherlands
[3]University Medical Centre Utrecht, Utrecht, The Netherlands
[4]National Institute for Public Health and the Environment, Bilthoven, The Netherlands
[5]Department of Public Health Medicine, School of Public Health, University of Bielefeld, Germany
[6]University Medical Centre Utrecht, Utrecht, The Netherlands
Contact: alessandro.cassini@ecdc.europa.eu

Background

Burden of disease methodologies allow for the computation of composite measures of the overall impact of disease. Ranking of diseases based on burden can then provide a more rational evidence base for prioritisation than basic measures of incidence or prevalence. The Burden of Communicable Disease in Europe (BCoDE) project aimed at delivering a flexible user-friendly tool for the calculation of Disability-Adjusted Life Years and the communication of the impact of communicable disease in the European Union.

Methods

A software tool 'BCoDE toolkit' was developed using using Qt C++ toolkit, version 4.8.0, and html javascript. Disease models were obtained through literature reviews concerning the natural history of 32 communicable diseases. Estimates of disability weights were obtained through a survey of a sample of different European countries. Each selected disease generates a model visible as a graphical outcome tree.

Results

The BCoDE toolkit was distributed to national experts for estimation of national burden of communicable diseases. By default, users input country-specific communicable disease notified data and gender-specific multipliers adjusting for under-estimation. The user is also allowed to edit population data as well as parameters of the outcome tree. The results are presented first separately for each disease model as 'Detailed results', and then as 'Aggregated results' comparing and ranking different diseases according to the relative burden.

Conclusions

The BCoDE toolkit facilitates the utilization of the BCoDE evidence-based approach, fostering its value in health policy formulation and ensuring effective communication between data generators and users through multiple visualization options. The use of data from The European Surveillance System (TESSy) allows national expert to assess the availability and quality of epidemiological data.

Key messages

- A flexible user-friendly tool for the calculation of Disability-Adjusted Life Years and the communication of the impact of communicable diseases in the European Union was developed
- The software facilitates the use of the burden of communicable disease approach, fostering its value in health policy formulation and facilitating communication between data generators and users

Effectiveness and impact of rotavirus vaccines in Europe, 2006–2014

Emilie Karafillakis

E Karafillakis[1], *S Hassounah*[1], *Christina Atchison*[2]
[1]WHO Collaborating Centre for Public Health Education and Training, Imperial College, London, UK
[2]Department of Primary Care and Public Health, Imperial College, London, UK
Contact: emilie.karafillakis@lshtm.ac.uk

Prior to the introduction of rotavirus vaccines in 2006, rotavirus was the leading cause of severe gastroenteritis among European children under five years of age. In 2006, two live attenuated rotavirus vaccines with demonstrated high efficacy and good safety profiles were licensed for use in Europe. Published data from the past eight years on the effectiveness and impact of both vaccines in European countries was summarised to generate a transparent base of evidence for policymakers across Europe.

A systematic review of the published literature was conducted to examine the effectiveness (VE) and impact of rotavirus vaccines in Europe following the first eight years of routine use. Studies from any country in the WHO European Region were identified using PubMed, Embase, Cochrane, Google Scholar, and the System for Information on Grey Literature in Europe. The review, selection and abstraction of articles was conducted by three reviewers independently.

The systematic literature review yielded 276 unique citations. Twenty four studies on effectiveness (n = 9) and impact (n = 15) met the inclusion criteria. Across Europe, VE against rotavirus-related healthcare utilisation ranged from 68% to 98%, consistent with efficacy data from clinical trials. Reductions in rotavirus hospitalisations ranged from 65% to 84%.

This study confirmed the significant public health benefit of rotavirus vaccination in Europe as an important tool for protecting children against gastroenteritis. It has contributed to a significant reduction in burden of rotavirus gastroenteritis. The VE observed under routine use is consistent with efficacy data from clinical trials. These benefits were observed consistently across all European countries in which it has been introduced as part of the routine childhood immunisation schedule. This study provides further evidence to support the implementation of universal rotavirus vaccination in all European countries.

Key messages
- In Europe, rotavirus VE ranges from 68–98% and hospitalisation reduction ranges from 65–84%
- This study confirms the public health benefit of rotavirus vaccination and supports its implementation in Europe

Information & Communication Technology to enhance immunization in Europe: the EUVIS project protocol

Carlo Signorelli

C Signorelli[1], A Odone[1], C Merli[2], P Lopalco[3]
[1]Department of Biomedical, Biotechnological and Translational Sciences, University of Parma, Parma, Italy
[2]University of Parma, Parma, Italy
[3]European Centre for Disease Prevention and Control, Stockholm, Sweden
Contact: carlo.signorelli@unipr.it

Background

The EU has recently recognized immunization programs as key prevention tools to reduce the burden and related costs of infectious diseases in Europe. Information and communications technology (ICT) has a great potential to enhance immunization programs. We present the EUVIS (EUrope Vaccines ICT Strategies) project: a three year project coordinated by the University of Parma, Italy.

Objectives

General aim of EUVIS is to systematically assess the current use of ICT in immunization programs in all EU countries. In particular, to systematically assess:

1. the implementation of computerized immunization registries in Europe
2. how health authorities are applying ICT to educate the general public on immunization and to contrast the growing phenomenon of vaccine hesitancy
3. how ICT are applied to community-based and providers-based interventions aimed at increasing vaccine uptake

Methods

The project will develop along three consecutive phases: i) conduction of systematic literature reviews and meta-analysis, ii) conduction of three large-scale surveys among EU Member States, iii) dissemination of findings, models and best practices in the European context.

A scientific committee (SC) has been appointed to provide scientific expertise. Members of the SC were selected among world leading experts in the field of infectious diseases, immunization, health education and communication.

Expected outcomes

We will be able to assess the current use of ICT at different levels of immunization programs in all EU countries. In addition we will collect available data on effectiveness of intervention hat apply ICT, perceived barriers and future potential use and capabilities of ICT in the field of immunization. Our findings will be of fundamental importance to share best practices and as well as to inform public health authorities and policy makers with the ultimate aim to accelerate vaccine preventable diseases control in Europe.

Key messages
- Information and communications technology has a great potential to enhance immunization programs in Europe as it can be applied to surveillance, monitoring, education and communication actions
- Systematically assess the current use of ICT in immunization programs in all EU countries will allow to share best practices as well as to build solid evidence to inform public health authorities

1.K. Regular workshop: Fighting cardiovascular diseases: the contribution of EUPHA Sections to an evidence-based approach

Organised by: EUPHA Sections on Health Technology Assessment, Public Health Economics, Public Health Epidemiology, Food and Nutrition, Health Promotion
Contact: chiara.dewaure@rm.unicatt.it

Chairs: Chiara de Waure, Christiane Stock

Cardiovascular diseases (CVD) account for 35% of all deaths and are the leading cause of mortality in almost all Organisation for Economic Co-operation and Development (OECD) countries. The global costs of CVD are projected to rise by 22% up to 2030. Costs are attributable to direct healthcare expense for 55% and to productivity loss from disability or premature death, time loss from work and the need to seek care for the remaining 45%.

Because of the important morbidity and mortality, CVD represent an essential topic for Public Health practitioners. One of the goals is to promote cardiovascular preventive interventions through actions on risk factors, in particular lifestyles. In fact, a large percentage of non communicable diseases are preventable through the control of four main behavioral risk factors: smoking, physical inactivity, alcohol consumption and unhealthy diet. In particular, 80% of premature deaths from CVD could be avoided by controlling tobacco, unhealthy diet and physical inactivity.

Interventions targeting these risk factors may obtain great population benefits but should be first assessed through an integrated approach encompassing the analysis of current and future trends of the prevalence of behavioral risk, the evaluation of effectiveness, cost-effectiveness and implications of interventions and the evidence-based development of appropriate policies. This workshop will be aimed at understanding how to integrate evidence in health promotion activities with respect to the control of behavioral risk factors. In particular, the workshop will address both practices in the field and assessment methods useful to support and evaluate them.

The workshop will include five presentations on the following topics:

1. Practices for CVD prevention
2. Nutrition-related risk factors and policies needed to control them
3. Long-term returns of effective obesity prevention policies in adolescence
4. Metrics to analyze public health interventions on CVD prevention from the HTA point of view
5. Epidemiological methods to assess the burden of CVD risk factors

The workshop will start with a brief introduction of 5 minutes and will be followed by the five presentations, each one 12 minutes long. The remaining 25 minutes will be dedicated to the plenary discussion.

Priority diseases, such as CVD, have been addressed by the Health 2020 policy framework. The contribution of EUPHA Sections to the monitoring and control of CVD burden, in terms of both assessment and policies, deserves attention and may represent a model for future activities in the field of health promotion and protection.

Key messages

- The workshop is meant to bring the attention on methods for assessing CVD burden and prevention tool and to discuss future prospective of the interface between policy, practice and research
- CVD are one of the priorities according to the Health 2020 policy framework and the workshop is expected to give insight into the integration between assessment methods and policies development

Integrating evidence into practice: examples from the Slovenia National Program on CVDs Prevention

Pia Vracko

P Vracko[1], J Maucec Zakotnik[1], J Govc Erzen[2]
[1]National Institute of Public Health Slovenia
[2]Community Health Center Celje and National Institute of Public Health Slovenia
Contact: Pia.Vracko@nijz.si

Background

The burden of chronic non-communicable diseases (NCDs) represents one of the major challenges of Slovenia's development. Integrated prevention and control of NCDs, including CVDs, is carried out at the primary health care level since 2002 as systematic and universally accessible program. In 2011 it was upgraded to introduce registered nurses who deliver mainly preventive services.

Methods

Target population of the program is represented by adults above 30 years of age. Key components of the program are screening with assessment of cardiovascular risk, and non-pharmacological support to individuals in changing lifestyle (healthy weight loss, healthy diet, physical activity for health, quit smoking, reduce alcohol consumption and support in dealing with depression) delivered in 61 Health Education Centers. The program was developed based on several different types of scientific evidence and is adhering to current international CVDs prevention guidelines. The interventions to support healthy lifestyles are based on scientific evidence on health benefits of healthy diet and nutrition (low salt, low fat, low sugar), of regular physical activity, of tobacco control and of reducing the harmful use of alcohol. The approaches to support the lifestyles change are based on motivation interview technique Calgary - Cambridge Model and on the Transtheoretical Model of behavior change.

Results

The register of the program holds over 500.000 entries for the persons screened and treated over more than 10 years. In the last twenty years, in Slovenia the number of deaths from all types of CVDs halved. Compared to year 2000, the number of deaths from these diseases is reduced by around 1,200 annually.

Conclusion

Significant changes in CVD mortality have been observed, but how much of these are attributable to the preventive program needs to be still determined.

The significance of nutrition-related risk factors, and the policy changes needed to reduce the risks these pose

Christopher Birt

C Birt
University of Liverpool, Liverpool, UK
President EUPHA Section on Food and Nutrition
Contact: christopher.birt@liverpool.ac.uk

Problem

Misuse of subsidy to promote saturated fat-rich foods.

Description of the problem

In the European Union, cardiovascular diseases account for 23% of the disease burden (measured in DALYs), and are the cause of 52% of all deaths. The Interheart Study has demonstrated that, of potentially modifiable risk factors associated with myocardial infarction, more than half are associated with aspects of diet. Approximately 25% of these risk factors relate to serum cholesterol (HDL/LDL cholesterol ratio, in particular), which has been shown to be associated with the types of fats consumed: in particular, diets rich in saturated fats are associated with high levels of serum LDL cholesterol. However, foods with high saturated fat content are precisely among those subsidised from taxation in whole farm payments. The excess European mortality attributable to both subsidy for saturated fat production and lack of incentive to increase fruit and vegetable production has been well reported.

Policy changes needed

Since 2005, European farmers no longer receive additional subsidy for extra production. European production of principal farm products has stabilised, but farmers still (within whole farm subsidies) receive massive subsidies for production of beef and dairy products. The Common Agricultural Policy should be altered, so as to phase out subsidy for beef and dairy production, and instead to subsidise increased production of fruit and vegetables. Additional taxes on unhealthy foods may also be indicated.

Lessons

The importance of appropriate agriculture and food manufacture policies for human health.

Estimating the long-term returns of effective obesity prevention policies in adolescence: A simulation modeling approach

Diana Sonntag

D Sonntag[1], M Jarkzok[1], S Ali[2]
[1]Mannheim Institute of Public Health, Social and Preventive Medicine, Medical Faculty of the Heidelberg University, Mannheim, Germany,
[2]Department of Health Sciences and Centre for Health Economics, University of York, York, UK
Contact: diana.sonntag@medma.uni-heidelberg.de

Background

This presentation is aimed to describe a new method to quantify how much cost in adolescence would fall if we returned to the level of overweight and obesity experienced two decades ago.

Methods

Using longitudinal data of the Socioeconomic Panel (SOEP), an Obesity Model using Markov modeling techniques was developed. Random effects meta-analysis was applied to estimate costs for overweight and obesity received from a systematic literature review. A simulation of one cohort with different baseline weights at age 18 and followed to death or up to age 100 of their lifetime was carried out in order to analyze health care expenditures and indirect costs.

Results

Our analysis showed that the majority of overweight and obese adolescents remained in the same Body Mass Index (BMI) category during their adult life, resulting in significant direct and indirect costs over the lifetime. We estimated that a fall of overweight and obesity among the current prevalent German population to the level experienced two decades ago would result in cost savings of 206 million EUR (discounted at 3%) for women and 350 million EUR (discounted at 3%) for men.

Conclusions

Obesity prevention in adolescents goes beyond its immediate health benefits; it reduces medical and indirect costs substantially in later life. Our Markov model developed for this analysis can serve as a starting point for evaluating cost-effectiveness of efforts to prevent overweight and obesity in adolescence.

Metrics to analyze public health interventions that aim to impact on CVD prevention: a HTA perspective

Iñaki Gutiérrez-Ibarluzea

I Gutierrez-Ibarluzea[1], *D Dubois*[2], *I Lenoir-Wijnkoop*[3]
[1]Osteba, Basque Office for HTA, Department for Health, Basque Government, Spain
[2]Pharmed, Université Libre de Bruxelles (ULB), Brussels, Belgium
[3]Utrecht University. Department Pharmaceutical Sciences, Utrecht, The Netherlands
Contact: osteba7-san@euskadi.eus

Background

HTA bodies mostly focused on informing direct consequences in health care systems of drugs and medical devices. For the purpose of analysis and comparison, QALY, DALY and generic scales (SF-6D; EQ-5D) were developed. They have not primarily been designed to measure the health and economic impact in the context of prevention from a societal or citizen-centric perspective. Health systems are looking at prevention as a solution for sustainability and for enhancing the return on investment (ROI) of Public Health interventions, especially when focused on chronic diseases that suppose a high burden and costs to the health care systems.

Methods

A systematic overview of the reports produced by HTA doers was performed by seeking the HTA CRD database. Two main focuses were made, methodological approaches and the evaluation of Public Health interventions with special emphasis on CVD prevention.

Results

From the retrieved reports, it is observed that there is a need for establishing new designs and metrics to analyse the direct and indirect consequences of Public Health interventions on overall health, health systems' budget, citizens' physical functioning and psycho-social well-being. The necessity of measuring the ROI of Public Health interventions and the gaps in current metrics has also been pointed out by some organizations such as NICE, CADTH or AHRQ. One of the main issues encountered was related to the length of the follow up periods and the difficulties in finding direct correlations between interventions and outcomes and how these relate to health systems.

Conclusions

There is a claim by HTA doers in considering the inclusion of new dimensions in current metrics and the possibilities of considering metrics related to Citizen/Patients Reported Outcomes in the analysis of Public Health interventions.

The role of epidemiology within HTA: a systematic review of epidemiological methods in assessing the burden of cardiovascular disease risk factors

Giuseppe La Torre

G La Torre, R Saulle, A Meggiolaro, D Mipatrini, A Mannocci
Department of Public Health and Infectious Diseases, Sapienza University of Rome, Rome, Italy
Contact: giuseppe.latorre@uniroma1.it

Background

The use of epidemiology in producing evidence is crucial for Health Technology Assessment (HTA). The aim of this study was to perform a systematic review on the epidemiological methods used in assessing the burden of cardiovascular disease risk factors.

Methods

We searched on scientific literature databases (Pubmed and Scopus) using the following keywords: ''Health technology assessment'', ''cardiovascular'', ''risk factors''. A narrative review was conducted for describing the results.

Results

The search on Pubmed and Scopus retrieved 256 and 280 abstracts, respectively. The systematic review showed a wide variety of methods in assessing the burden of cardiovascular disease risk factors. The vast majority of them are concerning the development of algorithms, health screening, risk assessment, the use of position paper and the prediction of 10-year risk of cardiovascular diseases.

Conclusions

The different epidemiological methodologies applied to this field confirm the crucial role of epidemiology in the production of HTA reports and scientific literature.

1.L. Oral presentations: Work and health 1

The burden of disability retirement due to different diagnoses

Mikko Laaksonen

M Laaksonen, J Rantala, N Järnefelt, J Kannisto
Finnish Centre for Pensions, Helsinki, Finland
Contact: mikko.laaksonen@etk.fi

Background

Seven percent of the Finnish working-age population retires due to disability at the average age of 52 years, i.e. 11 years before reaching the earliest eligibility age for old-age pension of 63 years. Disability retirement occurring at younger age can be considered to be a greater loss to the individual and the society than later retirement. We examined the burden of disability retirement due to different diagnoses taking into account the incidence and the age of disability retirement.

Methods

Nationwide register data from the Finnish Centre for Pensions was used to calculate the expected number of years spend on disability pension in 9 disease categories applying life table - based methods.

Results

After accounting for return to work, the expected number of working years lost due to disability retirement for a 25-year-old was 2.47 years. Depression contributed 0.39 years (16%) and other mental disorders 0.57 years (23%). Among the somatic diseases, musculoskeletal diseases contributed 0.61 years (25%), diseases of the nervous system 0.25 years (10%), and cardiovascular diseases, neoplasms, injury and all other illnesses 0.20-0.13 years (7-5%) each. Return to work considerably lowered the estimates in particular for disability retirement due to mental disorders and injury. Differences between women and men were small but a strong gradient by educational level was found, largely reflecting the distribution of different diseases between the educational level groups.

Conclusions

This study quantified the burden of disability retirement due to different diagnoses in terms of lost working careers. Mental disorders have stronger societal impact that expected due to their earlier age of initiation than what is typical for somatic diseases. Policies to help those with mental health problems to stay in working life are important for improving their life opportunities and reducing social security costs.

Key messages

- Disability pensions due to mental disorders cause substantially larger burden when the early onset of the disease is taken into account
- Policies to help those with mental health problems to stay in working life is important for lengthening working ca-reers and decreasing social security costs

Explaining socioeconomic inequalities in work-ability during the three decades

Risto Kaikkonen

R Kaikkonen[1], T Härkänen[2], O Rahkonen[3], R Gould[4], S Koskinen[2]
[1]Department of Information Services, National Institute for Health and Welfare, THL, Helsinki, Finland
[2]Department of Health, National Institute for Health and Welfare, THL, Helsinki, Finland
[3]Hjelt Insitute, University of Helsinki, Helsinki, Finland
[4]Reseach Department, Finnish Centre for Pensions, Helsinki, Finland
Contact: risto.kaikkonen@thl.fi

Background

Limitations in work ability have decreased substantially in Finland and also in other developed countries. There is still a marked socioeconomic gradient in work ability but the possible changes of the causes of this gradient are poorly known.

Methods

The study was based on three nationally representative surveys from 1980–2010 of 30–64 year old Finns: 1) Mini-Finland, a cross-sectional health interview, through health examination, collected 1978–1980 from 8 000 Finns (96% participation). 2) Health 2000 Survey, based on Mini-Finland, collected 2000–01 with 5835 Finns (89% participation). 3) Health 2011 Survey, based on Health 2000 with 7964 Finns and participation of 73 %. Analyzes were done using Stata to produce Population Attributable Fractions (PAF) and predicted margins (PM). We analyzed PAF and calculated the avoidable numbers of absolute cases and to explain educational differences in work ability during the past three decades and to find explanations and their possible changes and similarities in 30-year period.

Results

Clear socioeconomic gradient was found in this 30-year period. Association to limited work ability of different health status, health behavior (ex. smoking PAF 4%-11%), risk-factors (ex. obesity PAF 7–12%) and the nature of job (physically and psychosocially demanding work) varied during the period. Moreover the similarities and differences were pointed out when explaining the gradient during this long period (PAF 62%-54%).

Conclusions

Educational differences varied in time and moreover the contribution of these factors varies in time. PAF shows that these differences are not the law of nature and justifies the potential that could be achieved when reducing these differences in work ability.

Key messages

- Improvements in working conditions, especially in physical working conditions in employees with low level of education may markedly reduce educational differences even during the 21st century
- Reducing smoking particularly in employees with low level of education may markedly reduce educational differences even during the 21st century

Regional differences in sickness absence in Finland: individual and area effects in 2010–2011

Jenni Blomgren

J Blomgren
Research Department, The Social Insurance Institution of Finland, Helsinki, Finland
Contact: jenni.blomgren@kela.fi

Background

Individual-level determinants of sickness absence are relatively well known but regional differences and effects of contextual factors are poorly understood. This study aimed to quantify regional variation in use of sickness allowance (SA) in Finland and to examine the associations of municipality-level characteristics with use of SA adjusted for individual-level covariates.

Methods

A register-based study was conducted using a 50% random sample of population aged 25–62 living in mainland Finland in 2009 (N = 1364400), clustered in 332 municipalities. Individual-level covariates included gender, age, marital status, income, unemployment and employment status and chronic disease. Municipality-level covariates included unemployment rate, proportion of working force in the refinement sector, general morbidity index, population size and municipality type. Zero-inflated negative binomial regression models were fitted to analyze the probability of receiving SA and number of SA days during 2010–2011 in the non-retired population who did not receive SA in 2009.

Results

16% of the sample had SA episodes during the two-year period, with variation from 9%-25% across municipalities. The average number of SA days in the sample during 2010–2011 was 8 days, with municipality variation from 3 to 21 days. All municipality-level variables were associated with both the probability of receiving SA as well as the number of SA days among the recipients, adjusted for individual-level covariates. Simultaneous adjustments for all individual- and municipality-level variables resulted in some attenuation of the estimates but also significant differences remained. All individual-level covariates were statistically significantly associated with use of SA rate and estimates were unaffected by adjustment of municipality-level variables.

Conclusions

Use of sickness allowance is one of the markers of permanent work incapacity and risk of disability pension. In addition to individual-level characteristics, also effects of area-level factors need to be acknowledged when aiming to reduce the burden of disability.

Key messages

- Large differences in use of sickness allowance are observed between Finnish municipalities but effects of contextual factors are poorly known
- Regional unemployment rate, industry structure, level of morbidity, population size and municipality type were associated with use of sickness allowance, adjusted for individual-level covariates

Sick leave among first-time parents in Sweden - the role of domestic and work equality

Margaretha Voss

M Voss[1,2], U Lidwall[1,2]
[1]Department for Analysis and Forecast, Swedish Social Insurance Agency, Stocklholm, Sweden
[2]Department of Clinical Neuroscience, Division of Insurance Medicine, Karolinska Institutet, Stockholm, Sweden
Contact: margaretha.voss@forsakringskassan.se

Background

In Sweden, women and men have about the same level of employment, also when having small children at home. Generally, women have an increased risk of sick leave compared to men, which may be due to the combination of domestic work and gainful employment. The aim was to analyse sick leave among first-time parents in relation to parent's division of domestic work and gainful employment.

Methods

First-time parents in 2002–2009 (n = 223,332) were identified from national registers of the Swedish Social Insurance Agency with data about sick leave, parental benefits, socio- economic, and socio-demographic factors. Equality in the proportion of parental and temporary parental leave and the proportion of the family's income from work were used as proxies for the parent's equality in the domestic and work sphere. Hazard ratios (HR) of the first new medically certified sick-leave spell (>14 days) after the first child was estimated by Cox proportional hazard regression, adjusted for demographic and socio-economic factors.

Results

Main domestic responsibility combined with equal share of income (double burden) is more common among women (15%) than men (3%) and increased the risk of sick leave for both women (HR = 1.19; 95%CI = 1.14-1.23) and men (HR = 1.20; 95%CI = 1.08-1.32). Equality in both spheres

(6%) increased the risk of sick leave for women (HR = 1.15; 95%CI = 1.10-1.20) but not for men. The traditional division, when women have the main responsibility for the domestic sphere and men for the work sphere (46%) decreased the risk of sick leave for both women (HR = 0.88; 95%CI = 0.86-0.91) and men (HR = 0.90; 95%CI = 0.86-0.94).

Conclusions

Our results support the double burden hypothesis that having the main responsibility in the domestic sphere combined with gainful employment increased the risk of sick leave among both women and men. A traditional division in the domestic sphere (woman) and work sphere (man) decreased the risk of sick leave for both genders.

Key messages

- Extensive demands from work-life and active parenthood are related to sick leave among both first-time mothers and fathers in Sweden
- The ability of organisations to successfully adjust the working conditions to the particular stress experienced by working parents with small children is an important public health issue

Changes in working conditions and physical functioning in ageing employees in Finland

Minna Mänty

M Mänty[1], A Kouvonen[2], T Lallukka[3], J Lahti[1], E Lahelma[1], O Rahkonen[1]
[1]Department of Public Health, University of Helsinki, Helsinki, Finland
[2]Department of Social Research, University of Helsinki, Helsinki, Finland; University of Social Sciences and Humanities, Faculty in Wroclaw, Wroclaw, Poland; UKCRC Centre of Excellence for Public Health (Northern Ireland), Queen's University Belfast, Belfast, UK)
[3]Department of Public Health, University of Helsinki, Helsinki, Finland; Centre of Expertise for Health and Work Ability & Disability Prevention Research Centre, Finnish Institute of Occupational Health, Helsinki, Finland
Contact: minna.manty@helsinki.fi

Background

The workforce is ageing rapidly in post-industrial societies. This highlights the importance of understanding factors contributing to physical functioning among ageing employees. The aim of this study was to examine the effect of changes in physical and psychosocial working conditions on physical health functioning among ageing municipal employees.

Methods

Follow-up survey data were collected from midlife employees of the City of Helsinki, Finland, at three time points: Phase 1 (2000-2002), Phase 2 (2007) and Phase 3 (2012). Changes in physical and psychosocial working conditions were assessed between phases 1 and 2. Physical health functioning was measured by the physical component summary (PCS) of the Short-Form 36 questionnaire at each of the three phases. In total, 2784 respondents (83% women) who remained employed over the follow-up were available for the analyses. Linear mixed-effect models were used to assess the associations and adjust for key covariates (age, gender, obesity, chronic diseases and health behaviours).

Results

Repeated and increased exposure to adverse physical working conditions was associated with increased decline in physical health functioning over time. In contrast, decrease in exposures reduced the decline. Of the psychosocial working conditions, changes in job demands had no effects on physical health functioning. However, decreased job control was associated with increased decline and repeated high or increased job control reduced the decline in physical health functioning over time.

Conclusions

Adverse changes in physical working conditions and job control were associated with increased decline in physical health functioning over time, whereas favourable changes in these exposures reduced the decline

Key messages

- This study examines the effect of changes in exposure to physical and psychosocial working conditions on physical health functioning among midlife and ageing municipal employees
- The results suggest that preventing deterioration and promoting improvement of working conditions are likely to help maintain better physical health functioning among ageing employees

1.M. Regular workshop: Discrimination and Public Mental Health

Organised by: EUPHA Section on Migrant Health, EUPHA Section on Public Mental Health
Contact: annette.wehrwein@hs-emden-leer.de

Chair: Jutta Lindert

The harmful impact of (perceived) discrimination on non-migrants and on migrant mental health is increasingly recognized. Everyday discrimination predicts poor mental health after controlling for other sources of distress and socioeconomic status. There are three major pathways whereby perceived discrimination can affect mental health: The first is through institutional practices that restrict socioeconomic mobility (e. g. education opportunities, unemployment); the second is through interpersonal experiences of discrimination; the third occurs when members of the minority group internalize stigmatizing attitudes and beliefs about themselves. Our goal is to contribute to better understand the links between discrimination and mental health in migrants to contribute to prevention and intervention efforts.

1. The first presentation provides results from a narrative review of studies on stigma and discrimination and mental health in migrants.
2. The second presentation provides results from a qualitative study on self-reported health status, experiences of discrimination and health care needs of people in eviction processes, as well as the role of civil society networks in association with mental health.
3. Next, three examples of quantitative empirical research approaches are presented:
4. One study presents analyses of data from 17 European countries in the European Social Survey of 2012
5. One study presents results based on a survey on discrimination and migrants‘ mental health from Italy
6. One study presents results from a survey on discrimination, migrants mental health and health care utilization from the Netherlands.

Presentations are followed by a discussion between speakers and the audience to understand which are the specifities of discrimination and how discrimination of migrants is linked to their mental health and which steps might be useful to translate insights from research into prevention and intervention efforts.

Key messages

- Perceived discrimination is a risk factor for mental health problems in non-migrants and in migrants
- Discrimination can be self-perceived or based on policies, legislation and attitudes

Stigma and Discrimination towards Migrants in Health Care

Ozge Karadag Caman

O Karadag Caman
Hacettepe University, Institute of Public Health, Ankara, Turkey
Contact: ozgecaman@hacettepe.edu.tr

Background

Stigma and discrimination in healthcare are well-known determinants of health among migrants. This presentation aims to contribute by reviewing mental health effects of stigma and discrimination towards migrants in healthcare settings, as well as presenting policy and practice examples that aim to tackle this global health problem at the national/local levels, with special emphasis on Turkey.

Methods

A narrative review of scientific literature on mental health effects of stigma and discrimination towards migrants in healthcare settings, health policy and law, as well as evidence-based policies, practices and collaboration that decrease discrimination in healthcare, and protect and promote mental health of migrants.

Results

Stigma and discrimination towards asylum seekers, refugees and migrants in health care occur in different dimensions, such as stigma and discrimination among healthcare professionals, and non-migrant health service users, self-stigma among migrants, in addition to discrimination in health policy and law. Stigma and discrimination in healthcare settings, coupled with stigma and discrimination against mental disorders, increase mental health burden among migrants by decreasing quality and accessibility of health services. There are evidence-based policies and practices that decrease discrimination towards migrants in health care. Turkey has been working for development of health policy and services for migrants, which include efforts to decrease discrimination and promote mental health.

Conclusions

Public health efforts to combat stigma and discrimination towards migrants should include systematic assessment and elimination of stigma and discrimination in health policy, law and services at the national and local levels. Only through scaling up these national efforts, strenghtened by international collaboration, can the accessibility and quality of health services, as well as mental health of migrants be improved worldwide.

Mortgage-Related Eviction Processes, Self-Reported Health Status, Experiences of Discrimination and Civil Society Engagement: Analysis from a Social Determinants of Health Framework

Amets Suess

A Suess[1,2,3], A Ruiz-Azarola[1,3], MI Tamayo-Velázquez[1,3], N García-Toyos[1,3], M López-Doblas[1,3], N Luque-Martin[1,3], I Ruiz-Pérez[1,2,3]
1. Andalusian School of Public Health, Granada, Spain
2. CIBER-ESP, Centre for Biomedical Network Research - Epidemiology and Public Health, Madrid, Spain
3. Institute for Bio-Health Research of Granada (ibs.Granada), Granada, Spain
Contact: amets.suess.easp@juntadeandalucia.es

Background

In the current moment of economic and systemic crisis, unemployment rates and mortgage-related evictions have increased significantly in Spain. A broad civil society movement has emerged, aimed at supporting people in eviction processes and defending their social rights. Within a social determinants of health framework, the research project analyzes the self-reported health status, experiences of discrimination and health care needs of people in eviction processes, as well as the role of civil society networks.

Methods

Qualitative research design, including 1. Semi-structured interviews with people in mortgage-related eviction processes in Andalusia, Spain, 2. Focus group with active members of civil society networks, and 3. Press analysis. Analysis of results Discourse analysis and triangulation by members of the research team.

Results

The participants report multiple health problems, mainly in the field of mental health and psychosomatic symptomatology, relating them to the experience of stress, shame and discrimination. Regarding health care needs, they highlight the importance of psychological support groups. Most of the interviewees identify the civil society networks as the most important source of support, underlining the relevance of information, empowerment, support in the negotiation process with the banks and collective mobilization. The interviewed activists stress the importance of changes in housing policies. The portrayal of suicide cases related to eviction processes in the written press opens up a reflection on the role, impact and ethics of journalism in the process.

Conclusions

The situation of people in eviction processes confirms the relevance of employment and housing as social determinants of health. The role of civil society networks in the process indicates the potential of civil society organization. At the same time, the results show the need for socially responsible health, employment and housing policies.

Social and political determinants of inequalities in depression by immigrant status in Europe

Davide Malmusi

Davide Malmusi[1], Laia Palència[2,1], Umar Ikram[3], Anton Kunst[3], Carme Borrell[1,2]
1. Agència de Salut Pública de Barcelona, Barcelona, Spain
2. CIBER Epidemiología y Salud Pública, Madrid, Spain
3. Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands
Contact: davidemalmusi@gmail.com

Background

Previous studies showed a higher risk of depression for immigrants in Europe, partially explained by socio-economic conditions. Associations have been shown between integration policies and immigrants' subjective wellbeing and self-rated health but not depression. We aimed to study the contribution of material and psychosocial conditions and integration policies to inequalities in depressive symptoms by immigrant status in Europe.

Methods

We used cross-sectional data from 17 European countries in the European Social Survey of 2012 to compare people aged $>=15$ years born in the country of residence ($n = 28{,}333$) or in a foreign country not classified as 'advanced economy' ($n = 2{,}019$). Linear regression models adjusted for age and country were used to compare immigrants' and natives' depression scores (CES-D 8-items version) and assess the contribution of perceived membership to a discriminated group, employment status, occupational social class and household income (quintile and adequacy). We fitted multilevel models to assess whether the slope of immigrant status was modified by country integration policy, measured through the six strand scores of MIPEX 2010.

Results

Immigrants had higher depression scores than natives (men: +0.75, 95%CI 0.54, 0.96; women: +0.75, 95%CI 0.51, 0.98). The coefficient was substantially reduced when adjusting for income (71% among men, 72% among women), discrimination (23% and 12% respectively) and social class (11%, 21%). Inequalities were lower in countries with higher scores on anti-discrimination policies (p for interaction <0.01) and access to nationality ($p < 0.05$ among women) but higher with higher scores on long-term residence ($p < 0.05$ among men).

Conclusions

Immigrants experience more depressive symptoms than the native population as a result of poorer economic resources and discrimination. Future studies should corroborate the country-level association of these inequalities with specific dimensions of integration policy.

Discrimination, integration and self-perceived mental health among immigrants in Italy

Alessio Petrelli

A Petrelli[1], *A Di Napoli*[1], *D Mandolini*[1], *A Rossi*[1], *R Gatta*[1], *G Costanzo*[1], *M Perez*[2]
1. National Institute for Health, Migration and Poverty (INMP), Rome, Italy
2. National Institute of Statistics (ISTAT), Rome, Italy
Contact: petrelli@inmp.it

Background

The increasing number of immigrants in Italy (8,3% in 2015; n = 5,073,000), has often created difficulty in social and workplace context, with consequence for immigrants' physical and mental health status. Our study investigated the role of discrimination and integration on immigrants' self-perceived mental health in Italy.

Methods

We analyzed a sample of immigrants resident in Italy (n = 25,326), obtained from 'Multipurpose survey on households with foreigners: social conditions and integration of foreign citizen', conducted by ISTAT (2011-2012). The survey collected information about demography, socioeconomic status, migratory pathway, discrimination and integration, work history, health status, health services use. Self-perceived mental health status was measured through mental component summary (MCS) of SF-12 questionnaire, assuming 10th percentile as cut-off for worse health status. Multivariate logistic models were performed using: MCS as outcome; discrimination at work, self-perceived loneliness, satisfaction about life as determinants; age, gender, educational level, area of origin and length of stay in Italy, as potential confounders.

Results

48.9% were males, mean age was 31.6 (SD = 18.3), 25.2% had low educational level, median length of stay in Italy was 8 (IRQ:6-13) years. They came from Europe (65.5%), Africa (17.3%), Asia (11.8%), America (5.4%). Higher risk of poor self-perceived mental health was observed for immigrants who declared to have suffered discrimination at work (OR = 2.02; 95%CI:1.77-2.30), self-perceived loneliness (OR = 3.05; 95%CI:2.71-3.44), low life-satisfaction (OR = 2.72; 95%CI:2.44-3.04).

Conclusions

Our findings confirm that mental health status among immigrants in Italy is affected by workplace discrimination. Social policies aimed at improving integration should be implemented. Results on self-perceived loneliness encourages initiatives to improve social inclusion policies.

Discrimination as predictor of mental health problems and mental health service utilisation among migrants

Gerrit Koopmans

G Koopmans
Erasmus University, Rotterdam, The Netherlands
Contact: g.koopmans@bmg.eur.nl

Background

Migrants are often confronted with discrimination. This might be an additional risk factor leading to a higher prevalence of mental health problems. We decided to investigate whether discrimination (as perceived) is a risk factor for mental health problems and as such predicts mental health service utilisation.

Methods

We used data from the 2nd Dutch National Survey of General Practice. Besides the main sample from the indigenous population an additional random sample (N = 1,339) was drawn from the four largest migrant groups in the Netherlands. We used only data from this additional sample. The survey contained questions on mental health care utilisation and indicators of mental health problems. Discrimination was measured by three questions (on scapegoating, treatment by governmental agencies, problems at work) combined in a Likert scale. Language mastery and acculturation (indicating modern vs. traditional normative beliefs) were also part of the survey. Regression analyses were used to predict mental health problems and mental health care utilisation.

Results

Perceived discrimination was negatively related to positive mental health (beta = −2.99) and positively to anxiety and depression (beta = .07). This was also the case when possible confounders (language mastery and acculturation) were added to the model. Perceived discrimination appeared to be predictive of mental health service utilization (OR = 1.40). Acculturation had an independent (positive) effect on utilisation (OR = 1.99). Discrimination as perceived among migrants with modern normative beliefs, seems to have a slightly lowering effect on utilisation (OR = .83) (not significant).

Conclusions

Perceived discrimination is a risk factor for mental health problems. In general this leads to more mental health service utilisation. Whether this leads to a reduction of help seeking behaviour among migrants with modern normative beliefs, deserves additional research.

1.N. Regular workshop: Traffic injuries in adolescents: epidemiology, contributing factors and brain development processes

Organised by: EUPHA sections: a) Injury prevention and safety promotion, b) Public health epidemiology and c) Child and adolescent public health
Contact: johan.lund@medisin.uio.no

Chairs: Johan Lund, Auke Wiegersma

After 1970, road safety has been greatly improved in many highly motorized countries with a reduction of road accident fatalities between 50 and 80%. Yet, some road safety problems persist and seem to be almost impossible to solve. One of them is the high accident rate of young drivers, in particular young male drivers compared to the safest group of drivers. In Norway, this rate has been on the same level the last 35 years, and it seems to increase in the latest years. Leonard Evans (1991) remarks that: 'The over-involvement of young, and male, road users is one of the largest and most consistently observed phenomena in traffic throughout the world. It is so robust and repeatable that it is almost like a law of nature.' One of our aims with this workshop is to discuss how we might influence this apparently 'law of nature'.

The first study in this workshop gives results from a systematic review of the reviews on adolescents and traffic injuries. Major risks involved and protective factors for preventing such traffic injuries will be presented.

The next study discusses the contributing factors to these seemingly unavoidable accidents. The main factors (in both sexes) seem to be of biological nature (hormones and brain development), over-optimistic self-assessments and being in a phase of life in which becoming independent, testing limits and rebelling against values is important. Extensive research and experimentation on driver training has been done, so far with limited success. Some structural preventive measures indicate positive effects, such as rewards system on speed reductions, and some with regards to driving license: suspension, age limits and graduation.

The two last studies go into the biological factors contributing to these traffic injuries. The development of the brain in the adolescents and its effect on (healthy) behaviour will be discussed. In a magnetic resonance imaging study, 34 males aged 18–19 years were divided into 17 high risktakers and 17 low risktakers. An emulating driving task was carried out, resulting in some similar, but also different activities in the brain of these two groups when risky situations occurred in the tests. We want to understand the risktaking processes in the brain of adolescents. This might enable us to design more precise driver training, and also to point at which structural prevention measures might have effect on reducing this seemingly constant over-involvement of adolescents in traffic accidents. If we succeed with this, we might be able to reduce the heavy toll of fatalities, permanent impairments and handicaps resulting from the high number of traffic accidents in adolescents. Our aim with this workshop is that it might be a step in that direction.

Key messages

- Traffic injuries in adolescents seem to be almost impossible to prevent
- New research on risk taking processes in the brain of adolescents might help in designing more effective prevention measures

A systematic review of the reviews on adolescents and traffic injuries

Alice Mannocci

G La Torre, A Mannocci
Department of Public Health and Infectious Diseases, Sapienza University of Rome, Italy
Contact: alice.mannocci@uniroma1.it

Background

Injury prevention is one of the most important preventive health challenges. Among them, traffic injuries to young motor vehicle occupants and pedestrians continue to be a leading cause of childhood and adolescent mortality and morbidity. The aim of this study is to perform a systematic review of reviews on risk factors leading to mortality and morbidity among adolescents as a consequence of a traffic injury.

Methods

We searched reviews and meta-analyses in the databases PubMed and Scopus using the following algorithm keywords: 'adolescent' AND 'traffic' AND 'injuries'. The time limit of the search was April 2015.

Results

A total of 312 and 606 reviews were collected, using PubMed and Scopus, respectively.

Young drivers appear to be most susceptible to distraction related crashes and lower comprehension of driving safety. Despite these risks, research has also shown that young drivers express greater willingness to undertake distracting tasks while driving than do older adults (i.e., use of a mobile phone while driving without hands free). Such effects may be compounded if the driver is impaired, perhaps by fatigue, alcohol, or drug use. Extensive research literature has identified an increased safety risk for adolescent drivers associated with carrying peer passengers.

Conclusions

Effective programs design applied to reducing adolescent road injuries were performed in the scientific literature. Many reviews describe major risks and protective factors for preventing traffic injuries among these age groups. The evidence needs to be taken into account for informing decision makers on the best practices available and for a better planning in this field.

Key messages

- Traffic injuries have been and are a major contributor to morbidity and mortality among adolescents
- Decision makers have to be informed on best practices for a better planning in this field.

Contributing factors to traffic injuries in adolescents

Johan Lund

R Elvik[1], J Lund[2]
[1]Institute of Transport Economics, Oslo, Norway
[2]Institute of Health and Society, University of Oslo, Norway
Contact: johan.lund@medisin.uio.no

Background

After 1970, road safety has been greatly improved in many highly motorized countries with a reduction of road accident fatalities between 50 and 80%. Yet, some road safety problems persist and seem to be almost impossible to solve. One of them is the high accident rate of young drivers, in particular young male drivers compared to the safest group of drivers. In Norway, this rate has been on same level the last 35 years. There is a need to understand which factors contribute to these persistent differences, and also develop effective prevention measures in reducing traffic injuries among adolescents.

Methods

Road safety problems can be classified in many ways. Through taxonomies combining contributing risk factors and dimensions of the problems, the difficulties with solving them can be assessed. Through literature reviews a Handbook of Road Safety Measures is under continuous development (English edition: https://www.toi.no/frontpage/the-handbook-of-road-safety-measures-new-edition-article27991-25.html). Some preventive measures regarding traffic injuries in adolescents have been found.

Results

The high risks of young drivers (in both sexes) are probably attributable to a powerful mixture of biological factors (hormones and brain development), over-optimistic self-assessments and being in a phase of life in which becoming independent, testing limits and rebelling against values is important. Those factors are hard to influence. Extensive research and experimentation on driver training has been done, so far with limited success. Some structural preventive measures indicate positive effects, as rewards system on speed reductions, and some with regards to driving license: suspension, age limits and graduation.

Conclusions

Main contributing factors to traffic injuries in adolescents seem to be of biological nature, hard to influence. Some structural preventive measures indicate positive effects, as rewards system for speed reductions, and with driving licenses.

It takes brains to take risks

Dagfinn Moe

MS Kwon[1], V Vorobyev[1], D Moe[2], R Parkkola[3], H Hämäläinen[1]
[1]Centre for Cognitive Neuroscience, Department of Psychology, University of Turku, Turku, Finland
[2]Department of Transport Research, SINTEF Technology and Society, Trondheim, Norway
[3]Department of Radiology, University Hospital of Tampere, Tampere
Contact: dagfinn.moe@sintef.no

Background

In the adolescent brain, the limbic system matures earlier than the frontal lobes. Emotional responses will then play greater role in governing behavior while capacity to control such responses remains under-developed. As a consequence, teens respond strongly to social contexts.

Methods

By personality tests, 34 male adolescents (18-19 years) were divided into 17 high and 17 low risktakers. In a magnetic resonance imaging (MRI) study, structural differences in gray and white matter of the brain were measured with voxel-based morphometry (VBM) and diffusion tensor imaging (DTI). A functional MRI study of the adolescence brain activation in an emulated driving task was carried out.

Results

Comparison according to actual risk-taking behavior during task performance revealed significantly higher white matter integrity in the high risk-taking group. Risk-taking activated two areas in the left medial prefrontal cortex (PFC) much more in the low than in the high risk-takers, whereas the right lateral PFC was equally activated by either decision and by either group.

Conclusions

These results are consistent with previous findings that engaging in risky behavior is associated with more mature WM, and greater impulse control is associated with lower WM integrity. These findings are contrary to conventional wisdom that increased risky behavior during adolescence is attributed to the immature brain.The study gives us a better understanding of what happens during the decision-making related to risky situations among young drivers.

Main messages

The understanding of brain development processes in adolescents must be implemented in driver education programs. A pedagogical concept 'Mind, Brain and Education' should be included.

The prevention of traffic injuries in adolescents - a no-brainer?

Auke Wiegersma

PA Wiegersma
University Medical Center Groningen, Groningen, The Netherlands
Contact: pawiegersma@gmail.com

Together with Canada and Australia, Europe is worldwide the safest area where (fatal) road traffic injuries are concerned. However, the number of adolescents involved in traffic accidents with fatal outcome (1 in 3,700 injury deaths in 15–24 yr. adolescents each year) remains a matter of high concern. Needless to say governments try to reduce mortality using all kinds of preventive measures.

The question then arises why so many of these preventive activities targeting adolescents seem to have no effect at all. One of the most important reasons for that is that many of these activities pay no heed to the fact that in adolescence, the brain is undergoing massive transformations that greatly influence the way adolescents deal with information concerning their (health) behaviour.

One textbook example of a wrong way to try to influence adolescents is to show them the horrific consequences of traffic accidents - pools of blood, severed limbs, disfigured faces and the like. Instead of being frightened into safe driving, adolescents tend to conclude that these victims, although pitiable, are just losers - they themselves would know how to avoid such situations, of course.

There are many examples of this kind of rather predictable effects, but as designers of preventive activities are mostly adults and do not take into account the effects of brain development in adolescents, preventive activities will in many cases continue to be useless or even detrimental.

In this presentation, the development of the brain in adolescents and its effect on (healthy) behaviour will be discussed.

1.O. Regular workshop: The added value of participation in health promotion and health research

Organised by: EUPHA Section Health Promotion; PARTNET (Network for Participative Health Research); ICPHR (International Collaboration for Participatory Health Research)
Contact: FrankM.Amort@fh-joanneum.at

Chairs: Thomas Abel, Frank M. Amort

Since the Ottawa Charter, it is widely accepted that community participation is an underlying value and fundamental principle in health promotion (HP). In recent years, an increasing number of health studies included elements of participation into their research designs. However, there is a lack of consensus of how to understand participation and meanings range widely. This workshop will provide theoretical and practical insight into the role of participation in HP and in health research.

The first presentation from Eva Ladekjær Larsen aims to raise questions of how participation is used in contemporary HP discourses and argues that often there is limited space for the less resourceful to participate in community-based HP programs. The second presentation from Michael Wright will discuss the primary characteristics of participatory health research as identified by the International Collaboration for Participatory Health Research (ICPHR), distinguishing this form of research from other approaches in the field of public health.

As a first example Susanne Hartung will focus on the question of how to engage the stakeholders in the participatory research process to investigate the factors determining successful strategies for health in all policies at the municipal level. Finally, Sigrid Mairhofer will give insight in the implementation of a participatory community-based health promotion program in a rural setting in South Tyrol (Italy).

The presentations will be followed by an interactive fish bowl discussion with the audience, which will allow all participants of the workshop to experience methods used in participatory practice. The discussion will have a focus on (1) a critical assessment of different theoretical frameworks of participation and their ethical implication for the relationship between health professionals and laypersons or patient experts and (2) the potential conflicts and the benefits associated with participation in the health research and practice of health promotion.

Key messages

- Participation is an underlying value and fundamental principle in health promotion, however the different theoretical frameworks need to be discussed within the Public Health community
- Participatory health promotion and health reserach implys ethical dilemmas for the relationship between health professionals and laypersons or patient experts

Who are the locals? Embracing community diversity and inequality in participatory approaches

Eva Ladekjær Larsen

E Ladekjær Larsen, C Stock
Unit for Health Promotion Research, University of southern Denmark, Esbjerg, Denmark
Contact: elarsen@health.sdu.dk

Tracing the origin of the concept of participation one finds that it is situated in a humanistic discourse originating in development studies during the 1960's and 1970's. It is frequently argued that participant approaches developed as a critique towards expert-driven development projects that neglected local knowledge and practices. The critique was simultaneously used as an explanation to why development projects failed. Today participation is a key word within various disciplines and is widely used to engage citizens in societal activities e.g. neighborhood regeneration programs, health promotion programs or in patient care. While participation carries some promising aspects such as integrating local people's perspectives in improving their own life conditions, the concept has been criticized for pretending to be a magic bullet that solves many and any problems. In fact critical perspectives emphasize that participation is a form of disguised governmental power aimed at disciplining citizens to behave in specific ways that are in the government's own interest. Situated in this critical perspective this presentation aims to raise questions of how participation is used in contemporary health promotion discourse. Drawing on empirical data in a Danish context the presentation demonstrates that in order to be able to participate, people must have skills and competences to express and argue for their needs. It is argued that people who do participate are resourceful or empowered individuals. This pattern reproduces existing power structures and relationships in our societies, leaving limited space for the less resourceful to participate in for example community based health promotion programs.

What is Participatory Health Research? A Position Paper of the International Collaboration for Participatory Health Research

Michael T. Wright

MT Wright
Institute for Social Health, Catholic University of Applied Sciences Berlin (KHSB), Berlin, Germany
Contact: michael.wright@khsb-berlin.de

Background

The International Collaboration for Participatory Health Research (ICPHR) has the goal of strengthening the role of Participatory Health Research (PHR) in practice, research and policy. The work of the ICPHR is focused on bringing together systematically the knowledge and experience of PHR in different countries for the purpose of improving the health of disadvantaged communities. The ICPHR is working to develop common principles, guidelines and quality criteria for conducting PHR. As a relatively new research approach, PHR has to this point lacked an internationally recognized definition and scientific basis.

Goal

The first position paper of the ICPHR defines core features of this approach. This presentation will discuss key issues raised in the paper.

Result

The ICPHR understands PGF as being a research approach rather than a research method. The approach is characterized by eleven key criteria. These criteria address such issues as research process, methodology, epistemology and validity.

Healthy Communities through Participatory Health Research with Stakeholders at the Municipal Level

Susanne Hartung

S Hartung[1], MT Wright[1], T Altgeld[2], G Bär[3], T Borde[3], C Böhme[4], R Burtscher[1], S Jordan[5], S Kümpers[6], S Pospiech[7], C Santos-Hövener[5], P Wihofszky[8]
[1]Catholic University of Applied Sciences Berlin, Institute for Social Health, Berlin, Germany
[2]Association for Health Promotion Lower Saxony, Hannover, Germany
[3]Alice Salomon University of Applied Sciences, Berlin, Germany
[4]German Institute of Urban Studies, Berlin, Germany)
[5]Robert Koch Institute, Berlin, Germany
[6]Fulda University of Applied Sciences, Fulda, Gernany
[7]Association for Health Promotion Berlin-Brandenburg, Berlin, Germany
[8]University of Flensburg, Flensburg, Germany
Contact: susanne.hartung@khsb-berlin.de

Background

The German research consortium PartKommPlus is investigating over the next three years the factors determining successful implementation and maintenance of integrated municipal strategies for health promotion (IMS). PartKommPlus is basing its work on the Participatory Health Research approach. The science of Participatory Health Research (PHR) will be strengthened within the context of health promotion practice and research in Germany. The consortium is funded by the Federal Ministry for Education and Research within the program Prevention Research. PartKommPlus is a project of the German Network for Participatory Health Research (PartNet) and supported by the International Collaboration for Participatory Health Research (ICPHR).

Methods

The goal and defining principle of PHR 'is to maximize the participation of those whose life or work is the subject of the research in all stages of the research process'. Thus the work will be conducted as a partnership between academic researchers, practitioners, vulnerable communities, and stakeholders. Five subprojects in the states of Berlin, Brandenburg, Hamburg, Hesse, Lower Saxony, and Baden-Wuerttemberg are taking part in the research project which includes a total of eight case studies.

Results

IMS are an important means for promoting the population's health. 'Integrated' means that stakeholders at the local level work together in the interest of the public's health through the entire life span. Thus a great challenge lies in engaging the stakeholders to participate in the case studies. The stakeholders are important at all stages of the research, from defining the questions, to identifying appropriate methods and producing meaningful results which can be used for implementing local strategies.

Conclusion

The presentation focuses on the question of how to engage the stakeholders in the participatory research process.

Community-based health promotion in South Tyrol (North Italy)

Sigrid Mairhofer

S Mairhofer
Free University of Bozen, Bolzano, Italy
Contact: Sigrid.mairhofer@unibz.it

Background

The concept of health promotion (HP) is hardly implemented in South Tyrol (rural province in Italy). In 2005 the local government founded a Organization for HP, which started to develop the 'healthy village' program for community-based HP. Primary goal of the program is to raise awareness for HP and to promote people's health within their everyday settings.

Methods

The presentation is based on a participatory social and health research project conducted in Vahrn - Varna, a typical village of South Tyrol. The research project runs from 2014 to 2016. It was developed in intensive collaboration with volunteer-associations and community members. The research methods were elaborated together with all stakeholders and not defined by experts alone, therefore research methods changed during the process.

Results

Already from the beginning of the project all voluntary associations and all citizens were informed about the project idea and the following process (trough meetings and the village newspaper). So all stakeholders - like for example the representatives from the different associations for elderly people - were involved just from the beginning and collaborated in the whole process, from the decision about the topics and used methods of data collection to the analysis and the planning and implementation of HP offers. While nearby all stakeholders had no knowledge and awareness about a holistic view of health and HP, they were sensitized and empowered to elaborate HP offers by themselves. Through this participative proceeding developed programs should continue after the end of the project and provide sustainability.

Discussion

This participative approach led to a high acceptance of the whole project and encouraged citizens to participate. The effectiveness of this proceeding for implementing community-based HP in rural villages is to verify.

1.P. Regular workshop: The future health workforce in the EU: how local and global governance matter

Organised by: Karolinska Institutet, Medical Management Centre, Sweden
Contact: ellen.kuhlmann@ki.se

Chairs: Ellen Kuhlmann, Ronald Batenburg

Background

Health workers are crucial to respond to the health needs of the population. Healthcare systems and policymakers do not adequately respond to the growing workforce challenges. Available data highlight a widening gap as well as alarming imbalances in the required competencies and geographical distribution of healthcare professionals. Globalization and austerity politics have increased inequality in the distribution of health human resources, as the recent Ebola crisis most dramatically illustrated. The threats of a poorly developed health workforce showed how local shortage can rapidly open the way to a global risk. There is also growing demand for new forms of professionalism and leadership as well as for organisational restructuring to better align changing case-mixes with innovative healthcare organisations and teams, which integrate professional groups more efficiently. The developments call for greater recognition of health workforce issues and for new forms of governance.

Objectives

The proposed workshop aims to demonstrate the importance of developing a strong healthcare workforce as a policy issue, to bring together research into health workforce governance in Europe, and to highlight how global and local (national, regional and organisational) dimensions of health workforce governance matter in order to create a sustainable health service system.

Results

The presentations highlight the lack of suitable planning and policy support, and inequitable and inappropriate use of health human resources. The presentations will also collectively explore governance approaches that reduce health workforce imbalances within as well as between countries. The contributions address the complex challenge to achieve more efficient health workforce governance. This includes different areas of governance, like migration and mobility flows, skill-mix and task-shifting, and the move towards decentralised policy-making. Taken together, the papers also help to explore how global and local governance matter and how they may coincide effectively.

Conclusion

The papers illustrate the complexity of workforce governance and the need for systems-based and multi-level governance approaches to address current deficiencies and reduce existing inequalities. The workshop seeks to contribute to the development of an emergent research field of health workforce governance, which will help to develop sustainable and balanced national and international solutions for a future health workforce.

Key messages

- Innovative health workforce governance is needed to respond to maldistribution and future shortages
- The health workforce is not simply a national issue but needs integrated global governance

Impact of the economic crisis on human resources for health policies in Southern EU countries

Gilles Dussault

G Dussault[1], T Correia[2], C Pontes[1]
[1]WHO Collaborating Center for Health Workforce Policy and Planning, Instituto de Higiene e Medicina Tropical, Lisbon, Portugal
[2]School of Sociology and Public Policies, Instituto Universitario de Lisboa, Lisbon, Portugal
Contact: gillesdussault@ihmt.unl.pt

Background

The economic and financial crisis which started in the European Union in 2008 affected some countries more than others. Cyprus, Greece, and Portugal had to receive emergency financial aid from the so-called Troika (International Monetary Fund, Central European Bank, European Commission) and consequently were imposed severe austerity measures. All sectors were affected, including health. This paper focuses on the effects of the crisis on the health workforce, which represents the largest share of expenditures in the sector, and on policy responses from these three governments to measures 'imposed' by the Troika.

Methods

A systematic search of peer-reviewed and grey literature, and key sources such as government websites was performed. Interviews with key informants were also conducted. Country data and information served to assess policy responses and their effects on the availability, accessibility, acceptability and quality of human resources for health.

Results

Countries responded to the crisis and to the conditions set by lenders by reducing or freezing salaries and benefits, by cutting on recruitment and even dismissing personnel, by increasing workloads, and by introducing other cost containment measures. The three countries do not seem to have used the crisis as an opportunity to make efficiency gains and thereby improve the performance of their health workforce.

Conclusions

This paper is included in the Workshop because it discusses policy responses to a major economic shock by governments facing external constraints, which at the same time limited their capacity for action and provided opportunities for reform.

Decentralising health workforce governance: balancing national and regional resources and interests

Ronald Batenburg

R Batenburg[1]
[1]Netherlands Institute for Health Services Research, The Netherlands
Contact: r.batenburg@nivel.nl

Background

A strong drive towards decentralisation has emerged, but it seems that for different parts of health workforce governance, different arguments play a role that alternately favour centralised or decentralised development and implementation. What these arguments contain, and what patterns can be seen in European countries, has not been analysed systematically.

Methods

A literature study was conducted to synthesise and order the argumentation and 'policy logic' behind centralisation and decentralisation of health policy-making. EU Member States are compared with regard to their balance between national and regional health workforce governance. This provides the opportunity to explore if this balance is related to a number of country conditions, and validate some of the argumentations found in the literature study.

Results

The balance between national and regional health workforce governance within countries is dynamic and complex. A number of theoretical argumentations are hard to be empirically validated; others only partly explain the cross-national variation within Europe. On the one hand, we see that the strength and tradition of healthcare systems determine what is central/nationally governed and what decentralised/regionally. On the other hand, regional/locally specific demographic, socio-economic and cultural developments appear to be disruptive to a countries' health policy and workforce strategy.

Conclusions

This paper is included in the workshop as it aims to explicate the argumentations (and hence justifications) behind both central and decentralised approaches in health workforce governance. The variation between and within EU countries is exploited to gain insights, and also to address new questions. Both can motivate health policy-makers at all levels to balance their strategic views on how to achieve and retain a sustainable health workforce in all regions.

Legal authority and workplace jurisdiction: A multiple-case study of nurse prescribing in hospitals

Marieke Kroezen

M Kroezen
Centre for Health Services and Nursing Research, Catholic University Leuven, Belgium
Contact: marieke.kroezen@kuleuven.be

Background

Governments increasingly see the shifting of tasks from physicians to nurses as suitable policy response to alleviate health workforce shortages. In a growing number of countries nurses obtain prescriptive authority. Yet little is known how legal task substitution is implemented in everyday clinical practice and to what extent legal and workplace jurisdiction resemble each other.

Methods

A multiple-case study of prescribing by nurse specialists in five Dutch hospitals was conducted, including non-participant observations of nurse specialists' prescribing consultations (n = 49), semi-structured interviews with nurse specialists (n = 15) and medical specialists (n = 14), and document analysis.

Results

Across hospitals and wards, there was great variety in the extent and way in which nurse specialists' legal prescriptive authority had been implemented, e.g. in terms of the number and range of medicines prescribed, supporting documents used and (mandatory) consultation or supervision by physicians. Nurse specialists' legal authority seems to have a vague relation to workplace realities. While Dutch nurse specialists are legally allowed to independently prescribe any licensed medicine within their specialism and competence, in the workplace they prescribe less often and in less independent ways. This has implications for policy expectations about the effects of nurse specialist prescribing.

Conclusions

This paper is included in the workshop because it points out the discrepancy between nurse specialists' prescriptive authority at macro (legal) and micro (workplace) level and shows that task substitution processes should take into account the considerable influence of the meso (organisational) level.

Efficiency and ethical considerations of health professional mobility in the EU

Irene A. Glinos

IA Glinos, M Wismar
European Observatory on Health Systems and Policies, Brussels, Belgium
Contact: igl@obs.euro.who.int

Background

Health professional mobility (HPM) in the EU is constantly changing as flows respond to new incentives and circumstances, challenging policy-makers to keep up. Policies react to changes but also accommodate the competing obligations and commitments countries are bound by. This paper explores the tensions implicit in HPM policy-making and how they can be reconciled.

Methods

A multi-disciplinary study examining HPM and retention policies in six 'new' EU Member States (expert interviews, desk research); the impact of the economic crisis/austerity measures on HPM (data analysis, literature reviews); the conceptualisation of HPM impacts (literature reviews, observational research); national and global tools available to address HPM (policy analysis, expert interviews).

Results

Policy-making on HPM is a balancing act between principles and priorities, between short-term/individual/national and long-term/collective/global interests. The EU promotes free mobility but also aims at reducing disparities between Member States. Countries have to run health systems as cost-effectively as possible but also adhere to principles of ethical recruitment and of non-discrimination. For countries, HPM can bring gains or losses; from an EU-wide perspective, mobility implies a redistribution of resources, which can be unsustainable when source countries cannot compete for qualified health workforce due to e.g. austerity measures. Ethically, mobility is a right but may contribute to widening the gap between resource-rich and resource-poor health systems. To clarify the tensions in HPM policy-making, the paper develops a matrix of four categories of policy considerations (efficiency/ethical, domestic/international) to help policy design.

Conclusion

Countries and the EU have to factor the efficiency and ethical implications of mobility into health workforce governance and consider how mobility can contribute to national and EU-wide workforce sustainability.

Migration and integration of Spanish nurses in Germany: the need for multi-level governance

Ellen Kuhlmann

E Kuhlmann[1], T Jensen[2]
[1]Medical Management Centre, Karolinska Institutet, Stockholm, Sweden
[2]TU University Dortmund, Dortmund, Germany
Contact: ellen.kuhlmann@ki.se

Background

This paper introduces a multi-level governance approach and uses pilot research into recruitment and integration of Spanish nurses in the German healthcare system. Setting focus on the connections, we aim to explore systems-based governance gaps and opportunities for interventions.

Methods

An explorative case study approach is applied that uses secondary sources and statistics to identify a global-local junction in workforce governance and a pilot study carried out 2014–2015 to gather qualitative in-depth information on what matters in managing mobility/migration of health workers in the EU. The research comprises expert information and three focus groups in Spain with nursing students and interviews with in an economically weak area to explore the process of migration decisions, and expert interviews in Germany in organisations with innovative integration models and additional information.

Results

More than 30% of Spanish in Germany nurses have left their employer after two years. The pilot reveals that organisational integration is important but not sufficient to respond to the challenges of new foreign recruitment policies in Germany that uses health workers from economically weak EU regions to fill staffing gaps. Institutional and individual barriers combine to counteract integration. German nurses' status is lower and tasks include basic care which in Spain is provided by nursing aids. Differences in the healthcare systems and gaps between individual expectations and work conditions create deprofessionalisation and individual perceptions of devaluation even if the work environment is supportive.

Conclusions

This paper is included in the workshop because it highlights that integration of European health professionals in Germany is not a sustainable strategy. Furthermore, integration is not only an organisational issue but needs to be flanked by systems-based integrations and transnational European health workforce policy.

1.X. Round table: Strengthening vaccination strategies: the role of Europe

Organised by: EUPHA and SItI, with facilitation and funding from Vaccines Europe

Chairs: Walter Ricciardi, Carlo Signorelli

It will be a great opportunity for international public health experts to hear from excellent speakers an overview of vaccination policies in EU and other countries. The Workshop aims to encourage a discussion among scientists, decision makers and manufacturers on possible partnership and harmonization of vaccines and vaccinations in Europe.

Speakers:
Hon. Beatrice Lorenzin, Minister of Health, Italy and Immediate Past President of the European Council
Hon. Vytenis Andriukaitis, EU Health Commissioner
Discussants:
Xavier Prats or Martin Seychell, European Commission, DG Santé
Luc De Bruyne, President GSK Vaccines
Susan Silberman, President Pfizer Vaccines
David Khougazian, President Sanofi Pasteur MSD
Conclusions:
Roberta Siliquini, Chair of the Italian Higher Health Committee
Aura Timen, President EUPHA Section Infectious diseases control

PARALLEL SESSION 2

Thursday 15 October 2015 16:00 – 17:30

2.A. Oral presentations: Global health issues

Sexual and physical intimate partner violence among women using prenatal care in Mampula, Mozambique

Eusébio Chaquisse

E Chaquisse[1], S Fraga[1], G Macassa[2], J Soares[3], F Mbofana[4], H Barros[5]
[1]EPI Unit, Institute of Public Health, University of Porto, Portugal
[2]Dep. Occupational and Public Health Sciences-University of Gävle, Sweden
[3]Mid Sweden University, Sundsvall; Sweden
[4]Ministry of Health, Maputo, Mozambique
Contact: eechaquisse@gmail.com

Background

Intimate partner violence (IPV) is a major public health problem worldwide but research on IPV in Africa remains limited. This study aims to estimate the prevalence of sexual and physical intimate partner violence against women and its associated factors, in a sample of women using prenatal care in Nampula, province-Mozambique.

Methods

This is a cross-sectional study, carried out in six health units, from February 2013 to January 2014. One in every three pregnant women who visited primary health facilities for the first pre-natal appointment was eligible and invited to participate. After obtaining informed consent 869 pregnant answered the Conflict Tactics Scale 2. Odds ratios (OR) and respective 95% confidence intervals (95%CI) were calculated by using Logistic Regression.

Results

The prevalence of sexual abuse ever in life was 49% and of physical abuse was 46%. The past year prevalence was 46% and 44% for sexual and physical abuse, respectively. Sexual abuse and physical violence occurred in every age group. Significant associations were found between previous neonatal deaths and being physically abused, during the life-time (OR = 3.00, 95% IC: 1.67 to 5:39), and the past year (OR = 3.23, 95% CI: 1.80 – 5.80).

Conclusion

This study found a high lifetime and past year violence prevalence among women using prenatal care in Mozambique. Prenatal care provides a window of opportunity for identifying women who experience violence.

Key messages

- The prevalence of intimate partner violence is very high among women in Mozambique and prenatal care can be a sentinel setting
- The implementation of strategies to support women victims of violence in Mozambique is urgently needed

Violence during pregnancy among Angolian women

Henrique Barros

T Nimi[1,2], D Costa[1], S Fraga[1], P Campos[2], H Barros[1]
[1]Institute of Public Health, University of Porto, Porto, Portugal
[2]Faculdade de Medicina da Universidade Agostinho Neto, Angola
Contact: hbarros@med.up.pt

Background

Violence during pregnancy is a major public health problem, especially in low and middle income countries. We measured the prevalence of violence against pregnant women in Luanda (Angola), its associations with demographic and socioeconomic characteristics of the women and its impact on pregnancy outcomes.

Participants and Methods

We conducted a cross-sectional study, involving 984 puerperal women aged 13–46 years old assessed between December 2012 and February 2013 at Lucrécia Paím Maternity, Luanda. Chi-square test was used to compare the prevalence of physical and of psychological violence according to demographic, socioeconomic, lifestyle, reproductive health related characteristics and pregnancy outcomes. Logistic regression models were fitted to analyze the association (Odds Ratio, 95% Confidence Interval; OR, 95%CI) between violence during pregnancy and low birth weight.

Results

The prevalence of violence during pregnancy was 12.6%. Experiences of physical, psychological and sexual violence were reported by 4.3%, 7.5% and 0.2% of the women, respectively. Women experiencing physical violence were younger ($p = 0.005$), more often reported to consume alcohol ($p < 0.001$) and were two times more likely to deliver a low birth weight newborn (adjusted OR, 95%CI = 1.92, 0.92-3.97).

Conclusion

This first report on violence against pregnant Angolan women, shows that physical violence is frequent and significantly associated with adverse outcomes, and that prenatal care content should include inquiring about violence during pregnancy.

Key messages

- Abuse of Pregnant women is frequent in Angola
- Screening for violence should be part of prenatal and maternal care

Influence of HIV- infection on pregnant women's subsequent mortality in Maputo Mozambique 2007-2010

Elina Hemminki

E Hemminki[1], S Parkkali[1], G Salome[2], O Augusto[3], J Cliff[3], B Nwaru[4]
[1]National Institute for Health and Welfare; University of Helsinki; Helsinki Finland
[2]Department of Physiological Sciences, Eduardo Mondlane University, Maputo, Mozambique
[3]Department of Community Health, Eduardo Mondlane University, Maputo, Mozambique
[4]Centre for Population Health Sciences, University of Edinburgh, UK
Contact: elina.hemminki@thl.fi

Background

Very little is known how HIV-infection influences pregnant women's subsequent mortality. This study investigates mortality after first prenatal visit in Maputo Mozambique.

Methods

A cohort study nested in a pragmatic trial comparing two iron prophylaxis methods. 4326 pregnant women (>18 years old; non-high-risk pregnancy) were recruited at first prenatal visit in two health centers November 2006–March 2008. Most were routinely screened for HIV and in one of the centers there was a drug-treatment policy. Deaths until April 2011 were traced from death registers by probability matching. Deaths were classified by the probability of the correctness of matching. Hand-written death causes were coded by modified ICD 9 system.

Results

874 (20 %) of the women were HIV-positive at first prenatal visit. The mean follow up time was 3.6 (range 3.0–4.4) years. Overall 467 women and 280 in the two best matching groups died. The death rate was somewhat higher among the HIV-positive than among the HIV-negative women: 7.7% and 6.2% in the two best matching groups. The rates during pregnancy or 365 days after delivery were 3.2% and 3.1%. The background characteristics varied by HIV-status: HIV-positive

women were older, more often had children and low hemoglobin. Adjusting for these and the small differences in health center, gestational age at recruitment, self-reported malaria before recruitment, and length of follow-up did not notably influence the results.The odds of HIV-positive women dying any time compared to HIV-negative women was 1.06 (CI 0.79-1.44) and until 365 days postpartum 0.74 (0.47-1.16). HIV-related cause was the most common death cause both among HIV-positive (34% of all deaths) and HIV-negative (33%) women.

Conclusions

Subsequent mortality of pregnant women in Maputo was high, but little influenced by HIV-positivity at the first prenatal visit. This can be explained by treatment or not detecting later HIV-infections.

Key messages

- Screening for HIV in early pregnancy was useful in Maputo, but HIV-negative women were susceptible for later infection, which was likely to remain undetected
- Health data registration in Mozambique needs urgent improvement to follow-up public health programs

Climate Change Projections of West Nile Virus Infections: Implications for Blood Safety Practices

Jan Semenza

JC Semenza[1], A Tran[2], L Espinosa[1], B Sudre[1], D Domanovic[1], S Paz[3]
[1]European Centre for Disease Prevention and Control, Stockholm, Sweden
[2]CIRAD, UPR Animal et Gestion Intégrée des Risques, Montpellier, France
[3]Department of Geography and Environmental Studies, University of Haifa, Mt. Carmel, Haifa, Israel
Contact: jan.semenza@ecdc.europa.eu

Background

West Nile virus (WNV) is transmitted by mosquitoes in both urban as well as in rural environments and can be pathogenic in birds, horses and humans. Extrinsic factors such as temperature and land use are effective determinants of WNV outbreaks in Europe, along with intrinsic factors of the vector and virus.

Methods

With a multivariate model for WNV transmission we computed the probability of WNV infection in 2014, with July 2014 temperature anomalies. We applied the July temperature anomalies under the A1B climate change scenario for 2025 and 2050 to model and project the risk of WNV infection in the future. Since asymptomatic infections are common in humans (which can result in the contamination of the donated blood) we estimated the predictive prevalence of WNV infections in the blood donor population.

Results

External validation of the probability model with 2014 cases indicated good prediction, based on an Area Under Curve (AUC) of 0.871 (SD = 0.032), on the Receiver Operator Characteristic Curve (ROC). The climate change projections for 2025 reveal a higher probability of WNV infection particularly at the edges of the current transmission areas (for example in Eastern Croatia, NorthEastern Greece and Northwestern Turkey) and an even further expansion in 2050. The prevalence of infection in (blood donor) populations in the outbreak-affected districts will also expand in the future.

Discussion

Predictive modelling of environmental and climatic drivers of WNV can be a valuable tool for public health practice. It can help delineate districts at risk for future transmission. These areas can be subjected to integrated disease and vector surveillance, outreach to the public and health care providers, implementation of personal protective measures, screening of blood donors, and vector abatement activities.

Key messages

- Our predictive model suggests further WNV dispersal in the coming years to adjacent districts
- Areas at risk for current and future WNV transmission can be targeted for integrated surveillance, vector control, outreach and strengthened laboratory capacity

Association between childhood socioeconomic status and vegetables consumption in old age in Japan

Natsuyo Yanagi

N Yanagi[1], T Fujiwara[2], A Hata[1], K Kondo[3]
[1]Department of Public Health, Chiba University Graduate School of Medicine, Chiba, Japan
[2]Department of Social Medicine, National Research Institute for Child Health and Development, Tokyo, Japan
[3]Center for preventive Medical Science, Chiba University, Chiba, Japan
Contact: n-yanagi@chiba-u.jp

Background

Consumption of vegetables and fruits is recommended to prevent non-communicable diseases (NCDs). Although food preference is considered to be determined early in life stage, the association between childhood socioeconomic status (SES) and vegetable consumption in old age has been studied only in a few report. We aimed to examine whether this association exists in a Japanese population.

Methods

The data of independent aged population recruited from nation-wide 31 municipalities in the Japan Gerontological Evaluation study 2010 project were used. Childhood SES of three categories (low, middle, and high), and current consumption of vegetables and fruits were evaluated via self-administered questionnaire. Poisson regression was employed to investigate the association. Sex, age, other childhood circumstances, education, adulthood SES, health behaviors, NCDs, access to vegetable store, and social relationships were used as covariates.

Results

16,541(80%) of 20,758 individuals consumed vegetables and/or fruits at least once a day. After adjustment for age and sex, population with high childhood SES were1.18 (95% confidence interval (CI) = 1.06–1.31) and 1.36 (95% CI = 1.23–1.51) times more likely to be non-vegetable or fruit consumer than those with middle and low childhood SES. After further adjustment of education, significant difference with middle childhood SES disappeared. In the fully adjusted model, the difference with low childhood SES also disappeared.

Conclusions

Individuals with lower childhood SES were more likely to be non-vegetable and fruit consumer in old age. The association between childhood SES and vegetable and fruit consumption in old age might be partly mediated through education and current physical or social status.

Key messages

- Individuals with lower childhood SES were more likely to be non-vegetable and fruit consumer in old age
- We found lower childhood SES was associated with vegetable or fruit eating behavior in old age, which might be partially mediated by education or adult situation

Task-shifting from physicians to nurses in Europe and other major OECD countries

Claudia B Maier

CB Maier[1,2], LH Aiken[1,3]
[1]Center for Health Outcomes and Policy Research, University of Pennsylvania, USA
[2]Department of Healthcare Management, Technische Universität Berlin, Germany,
[3]Senior Fellow Leonard Davis Institute for Health Economics, Philadelphia, USA
Contact: clamaier@gmx.de

Background

Task-shifting has been implemented in the United States, Canada, Australia and New Zealand and increasingly in Europe. A cross-country comparison of task-shifting has been lacking across Europe. We assessed task-shifting practices in Europe and other OECD countries, and secondly, performed correlation analyses with OECD data.

Methods

A survey was developed, pilot tested and sent to 109 country informants in 39 countries covering Europe, the United States, Canada, Australia and New Zealand (response rate 85.3%). Country informants were chosen based on a pre-defined set of criteria. Countries levels of implementation was correlated with OECD secondary data: physician and nurse ratios, education, and primary mode of financing (fee-for-service vs other).

Results

Eleven countries have implemented extensive task-shifting (Australia, Canada, New Zealand, the Netherlands, US, UK (England, Wales, N. Ireland, Scotland), Finland, Ireland), measured by authority to diagnose, refer, treat and prescribe. However, countries' levels of regulation and financing varied, as did training requirements. The majority of countries showed emerging, yet limited task-shifting where nurses took up some advanced roles within confined boundaries. Five countries did not implement task-shifting.

Conclusions

Countries most advanced showed variations of the regulatory contexts, which may impact on nurses' practice patterns. Countries with decentralized regulation resulted in uneven levels of implementation, posing barriers to an efficient use of this workforce. Countries in early development stages focused primarily on adapting training capacity. From an international and especially, EU perspective, harmonizing competencies and training – in those countries showing similar levels of advanced practice – will be an important step to ensure the quality of care, avoid potential skill-loss and facilitate the recognition of education in increasingly connected labor markets.

Key messages

- Task-shifting from physicians to nurses is an increasing workforce trend in Europe, however, extent of task-shifting and levels of implementation vary
- An enabling policy context involves up-to-date regulation, quality education pipeline and a supportive financing structure

2.B. Workshop: Joining forces: citizens and regions for better health

Organised by: WHO Regions for Health Network, Region Skåne Public Health & Social Sustainability Unit
Contact: elisabeth.m.bengtsson@skane.se

Chair: Piroska Östlin

Presenters

- Elisabeth Bengtsson, Director of Public Health, Region Skåne, Sweden
- Kai Michelsen, Department of International Health, Maastricht University, The Netherlands
- Pirous Fateh-Moghadam, Health Observatory, Department of Health and Social Solidarity, Trentino, Italy
- Alberto Fernández, Andalusian School of Public Health, Spain
- Alberto Zanobini, Director of Meyer Hospital, Tuscany, Italy
- Cathy Weatherup, Head of Health Inequalities and International Health, Welsh Government, United Kingdom

No actor can own, lead or steer a system. Instead we need to co-create by focusing on a common purpose or common issue, where each actor's capabilities are used to solve the common problem, rather than on one sector driven development.

The intentional consequences of participatory approaches go far beyond the health sector and more into the realm of creating positive sustainable social change. Through the engagement of stakeholders, recognising the value of each person's contribution to the process is not only practical, but also collaborative and empowering in finding solutions together. Of course there are many different perspectives given, and assumptions are challenged, but this enables the creation of a space for new transformative insights offering fresh approaches.

The workshop draws on specific experiences from members of the WHO Regions for Health Network: Skåne (Sweden), Trentino (Italy), Andalusia (Spain), Wales (UK) and Tuscany (Italy); and looks at the need for participation and co-operation (Maastricht University). The following key messages will form the basis of the workshop panel discussion and be useful for those wanting to adopt a participatory approach to tackle health inequalities and social sustainability.

Key messages

Find the common purpose for the participants. Emphasis the potential of the common good or the common issue, when working as a connected whole, and enable people to see beyond their boundaries.

Focus on the process rather than the product. It is much harder to create ownership and involvement from all the stakeholders than to produce a product. Identify the common driving force of why everyone is doing this, and what new behaviour and norms everyone wants to have.

Trust the process. Be a sounding board that moves in-between the stakeholders like a free agent (or a broker or convener), and steer the process by being receptive and flowing with it rather than controlling it. Trust that the stakeholders will jointly make the 'right' decisions.

It is much more about people and power as well as about structures and processes**.** It is essential to win people's hearts through building trust and by giving them more responsibility. Human and social capital is essential, and why it is necessary to provide skills on how to be a free agent.

Create ownership of the process through leadership and ambassadors and engaging with networks and alliances that will ultimately drive the process and maintain its momentum.

Involve and empower other sectors (not only health) – engaging the whole of the public sector as well as communities and industries – share purpose, objectives and benefits.

2.C. Round table: Evaluating 'Whole of Society' programs in public health

Organised by: EUPHA Public Health Practice and Policy Section
Contact: m.bekker@fm.ru.nl

Chair: Helmut Brand

In the past years Health in All Policies has been developing in the direction of a 'Whole of Society' (WoS) approach. WoS consists of voluntarily engaging cross-sectoral public authorities and service providers as well as civil society organisations and commercial enterprises into programs for increasing (a) awareness, (b) coordinated multi-stakeholder initiative, and (c) health impact. The strategic uncertainty inherent in such a governance approach urges policymakers to call for robust evaluation, assessing impacts as well as guiding the developmental process. These programs pose specific challenges to evaluation as they consist of complex configurations of varying interventions at different levels, by multiple actors, with diverse objects and subjects at the same time.

In this roundtable workshop we bring together two examples of WoS programs from two different countries. Both involve evaluation studies highlighting specific challenges for traditional evaluative designs. One challenge is the timing for evaluation while the program is developing and being implemented. While this limits the feasibility of an output and outcome evaluation, it may enable a formative study that contributes to learning and adaptation. So how can innovative evaluation designs be developed that are fit-for-purpose?

Objectives

1. Exploring the particularities of WoS as a poly-centric governance mode in relation to hierarchical governance. Why and how could such a governance approach increase positive and efficient health impact?
2. Comparing the two examples from the UK and the Netherlands with regard to public health challenges, governance approaches, institutional contexts, and evaluation capacities involved.
3. Identifying opportunities and challenges for an appropriate evaluation design.

Workshop lay out:

1. Introduction by the workshop chair (5 min)
2. Two short presentations (30 min):
   a) Evaluation of the Public Health Responsibility Deal in the UK
   b) Evaluation of the National Prevention Program 'Everything is Health' in the Netherlands
3. Roundtable discussion with the audience (55 min), consisting of:
   a) Discussion panel reflections and questions for discussion (15 min):
      - dr. Matthias Wismar (European Observatory on Health Systems and Policies, expert in public health governance)
      - dr. Heide Weishaar (University of Glasgow, expert in corporate perceptions in public health)
      - Prof.dr. Maria Jansen (Maastricht University and Academic Collaborative Centre for Public Health Limburg, expert in health policy evaluation)
      - Elizabeth Eastmure (London School of Hygiene and Tropical Medicine)
      - Marleen Bekker (Maastricht University and Radboud University)
   b) Structured discussion with the audience with regard to the workshop objectives (30 min)
   c) Wrapping up and conclusions by the chair (10 min)

Key messages

- Evaluation of a Whole of Society approach requires a multifaceted study design reflecting its dynamics and uncertainties.
- Evaluation of a Whole of Society approach requires a concurrent formative arrangement for knowledge sharing, feedback and dynamic accountability.

The Public Health Responsibility Deal: lessons learned from evaluating a complex public health policy

Elizabeth Eastmure

M Petticrew[1], E Eastmure[1], N Mays[1], C Knai[1], MA Durand[1], E Nolte[1]
[1]Policy Innovation Research Unit, Faculty of Public Health and Policy, London School of Hygiene & Tropical Medicine, London, UK
Contact: Elizabeth.Eastmure@lshtm.ac.uk

Background

The Public Health Responsibility Deal (RD) in England is a public-private partnership involving voluntary pledges between government, industry and other organisations in the areas of food, alcohol, physical activity, and health at work, with the stated aim of improving public health in England. We evaluated the RD in terms of its process, likely impact on the health of the English population, and likelihood of it bringing about meaningful new action among organisations.

Methods

As a basis for planning the evaluation, we developed a detailed and evidence-based logic model of the RD to help understand the likely outcomes of the RD and the pathways by which these may be achieved. This informed the design of a multi-method evaluation comprising 1) analysis of publically available data on organisations' plans and progress; an evidence review of interventions described in pledges; interviews with key stakeholders; organisational case studies; and a media analysis.

Results

Lessons from this evaluation include: 1) even though a voluntary agreement may have public health improvement as its central aim, the complexity of the mechanism makes it difficult to evaluate it in terms of whether it improves health; 2) when progress reporting on pledge delivery is voluntary, it is difficult to assess progress over time and quality of implementation of pledges; 3) understanding the voluntary mechanism structure and processes is essential to understanding how and why businesses choose to get involved, and what they choose to do once they have signed up.

Conclusions

A creative and multifaceted approach is required for evaluating any complex public health policy, whether voluntary or regulatory. Any such evaluation needs to put together a jigsaw of evidence about processes, mechanisms and potential future health and non-health impacts, drawing on the current scientific evidence. In such cases assessing outcomes is clearly important but on its own may not be enough.

The Dutch National Prevention Program 'Everything is Health': evaluating governance as a precondition to health impact

Marleen Bekker

M Bekker[1,2], JK Helderman[2], I Lecluijze[1], M Jansen[1,3], D Ruwaard[1]
[1]Maastricht University, Health Services Research, Maastricht, The Netherlands
[2]Radboud University, Public Administration and Political Science, Nijmegen, The Netherlands
[3]Academic Collaborative Centre for Public Health Limburg, The Netherlands
Contact: m.bekker@maastrichtuniversity.nl

Background

The National Prevention Program 'Everything is Health' (EiH) 2014–2016) has adopted a 'Whole of Society' (WoS) approach by engaging societal and business organisations as well as public authorities and services to pledge their commitment 'to the realisation of the EiH goals by conducting specific focused activities'. Our two-year evaluation focuses on the governance and organisational conditions for the coherence, spread, consolidation and accountability of health promotion activities in the pledges, and the functioning of the EiH arrangements.

Methods

Three research stages consist of (1) a literature study and exploratory interviews of similar programs such as the UK Responsibility Deal, and the Dutch Corporate Social Responsibility program; (2) a qualitative monitoring of the Program Office and a selection of pledges; and (3) a responsive evaluation among and between program officers and pledgeholders in the EiH Platform.

Results

We consider EiH to be a governance experiment sharing responsibilities for health among public and private actors while developing a sustainable social order. One condition is to build an infrastructure for sharing knowledge, experience and feedback for peer review in an advanced pledgeholder community of practice. Another condition is to discourage non-compliance. There will be no sustainable health impact without such a consolidating infrastructure. Evaluating such a complex, ambiguous and uncertain approach requires a careful interaction between evaluators and program officers, pledgeholders and stakeholders. The EiH Platform can serve as a joint evaluative infrastructure.

Conclusions

Evaluating the EiH program as a governance experiment is a necessary precondition to organising health impact. Building a consolidating infrastructure for a sustainable order of responsibilities and health impact takes time, effort and risk. Evaluation design can set an example of an infrastructure for sustainable health impact.

2.D. Skills building seminar: Are we critical enough in analysing health research findings?

Organised by: EUPHAnxt, EuroNet and YFG
Contact: info.euphanxt@eupha.org

Chairs: Tjede Funk, EUPHAnxt; Anca Vasiliu, EuroNet; Sofia Ribeiro, YFG

Considerable differences exist between countries or populations. They differ in terms of their genetic background, for instance, but also in regard to their physical and social environment, their health system as well as social norms and moral values. Consequently, research results of a study conducted in one country cannot be taken for granted and applied to other populations. The transferability and applicability to a different setting need to be analysed critically. Students and young professionals are often confronted with scientific articles, which they have to analyse, interpret or challenge. In so doing, critical thinking skills are one key to success. They allow us to better understand and criticise a piece of work as well as to identify patterns and arguments. There might be pitfalls in the interpretation of articles due to one article being part of a bigger theory or study and might contain country-specific arguments. It is the responsibility of the reader to identify these underlying ideas and concerns to fully understand the standpoint of the authors and the setting in which the article has been produced. Only then are we able to evaluate the quality and universality of the article and its research findings.

The aim of this workshop is to give students and young professionals an insight into critical thinking and reading and encourage them to use their critical thinking abilities. Two keynote speakers will provide the background for this workshop. Diana Delnoij, associate editor of the European Journal for Public Health, will provide an insight into the importance of interpreting research findings and policy interventions in light of the healthcare system in which they have been produced. Peter Schröder-Bäck, president of the EUPHA section of Ethics in Public Health, will present the ethical perspective. He will show that culturally coined norms and values could lead, for example, to different outcomes in judging about the permissibility of a public health interventions. The workshop will provide several opportunities for participants to interact with speakers and with each other.

Key messages

- During this workshop participants acquire knowledge on the key skill of critical thinking and reading
- When interpreting research results it is important to consider them against the background of health systems as well as norms and values in which they have been produced

2.E. Regular workshop: The external health costs of coal power generation and prevention opportunities

Organised by: Health and Environment Alliance (HEAL)
Contact: anne@env-health.org

Chair: Genon K. Jense

Energy generation from coal power plants is a double threat to the climate and human health. On the road to the Paris Climate conference in December 2015, there is a growing awareness among the public health and medical community that Europe and the world on the need to end dependence on fossil fuel and make the switch to clean energy. The recently adopted Kolkata Call to Action by the World Federation of Public Health Associations calls for an end to coal power generation and supports divestment, echoing the recent decisiosn of the British Medical Association and many other investment, research and pension funds.

The workshop will present the latest science on how air pollution from coal power generation contributes to ill health among children, a recent assessment of the external health costs of coal power generation in Europe (based on EU Commission and WHO methodology); and case studies from selected European countries on how the medical community has engaged and provided evidence on the health impacts of energy choices.

The workshop aims to facilitate exchanges among EUPHA members on ongoing research and facilitating the science policy transfer on this issue in the network.

Key messages

- Ending coal power dependency is a win-win for climate and health protection
- The engagement of public health professionals in energy deliberations is necessary to achieve a health-friendly energy future

New science on air pollution and children's health

Peter Van den Hazel

P van den Hazel
International Network on Children's Health and Environment (INCHES), Dieren, The Netherlands
Contact: Peter van den Hazel <pvdhazel@upcmail.nl>

The presentation will cover recent evidence on how air pollution impacts children's health, including the WHO review of the science (REVIHAAP), and an overview of how emissions from coal power plants is implicated in air pollution (PM, SO2, NOx and mercury).

The external health costs of coal power generation in Europe: focus on Germany, Poland, Turkey, Balkan, UK

Anne Stauffer

A Stauffer
Health and Environment Alliance (HEAL), Brussels, Belgium
Contact: anne@env-health.org

Recent methodological advances (EU cost-benefit assessment of air quality, WHO HRAPIE study, Global burden of disease) allow for a quantification and monetisation of external health cost of air pollution in the EU-28 and Turkey. The presentation will introduce HEAL's study on the health costs of coal power generation in Europe, which was the first ever economic assessment. The study estimated the external health costs at up to 43 billion EUR a year. An overview of how the health and medical community in Germany, Poland, Turkey, Balkan countries and the UK have put forward health considerations in public debates on the energy future of the country will be given as well. (Two case studies on Poland and the Balkan countries will be presented in more detail by Krzyzanowski and Matkovic Puljic). Such a public engagement is crucial to ensure a health-friendly energy future.

Perspectives on coal&health in Poland

Lukasz Adamkiewicz

L Adamkiewicz
Health and Environment Alliance, HEAL, Brussels, Belgium
Contact: -

The air quality situation in Poland is one of the most worrysome in Europe with 45,000 premature deaths annually. In addition, six of the ten most polluted cities are located in the country. Coal power generation as welll as the use of coal for domestic heating is a key barrier for providing cleaner air. The presentation wiill provide the overview of the impacts of air pollution on the Polish population and showcase some recent activities of the health and medical community in Poland on cleaner air.

Air Quality and Energy in the Balkan countries

Vlatka Matkovic Puljic

V Matkovic Puljic
Health and Environment Alliance (HEAL), Brussels, Belgium
Contact: vlatka@env-health.org

Air pollution is the most important environmental risk factor for the health of Europeans. Air pollution from coal power plants contributes to higher rates of respiratory and cardiovascular disease as well as mortality in Europe. In the Balkan countries twelve new coal power plants are in the pipeline, adding to already poor air quality. The presentation will give the overview what is at stake for health in these countries and the ending of the dependency on coal power generation will contribute to better health, particularly in Serbia and Bosnia.

2.F. Round table: Ethics in Public Health Research: Collective Responsibility, Sustainability and Social Transformation

Organised by: EUPHA Section Ethics in Public Health; Amets Suess, Andalusian School of Public Health
Contact: amets.suess.easp@juntadeandalucia.es

Chair: Josep Figueras

Background

Ethics in public health research is embedded in an ethical framework that sees the rights of the individual as pre-eminent, based on the protection of autonomy, beneficence and non-maleficence, the right to give and withdraw consent, which must be informed, as well as the guarantee of confidentiality.

In contrast, many measures designed to improve population health are implemented at the population level, such as fiscal measures, regulations and legislation. Each, to some extent, challenges the autonomy of the individual and many involve trade-offs whereby the utility for the whole population is balanced against the disutility for a few. They are opposed most strongly by those who profit from health damaging products, often citing arguments based on ethics and individual autonomy.

From this collective perspective, specific ethical aspects can be identified, such as 1. The potential conflict between the protection of the population health and individual civil rights, 2. The collective character of research subjects and the ethics of participatory approaches, as well as 3. The social and political responsibilities of researchers.

In public health research it thus becomes necessary to discuss potential conflicts between the protection of public health and personal autonomy, the balance of collective versus individual decision making, as well as a fair distribution of benefits and risks.

Furthermore, the principles of social justice and transparency in priority setting and participant selection achieve special relevance. Reciprocity and trust, as well as the participation of the involved communities (with the attendant problems of defining communities in diverse societies) in all phases of the research process can be identified as salient aspects. The appropriateness of institutional review protocols developed in the context of clinical research must be questioned, especially in case of qualitative and ethnographic methods while process-oriented, participatory and reflexive approaches to research ethics offer potential for wider use.

Finally, ethics in public health research include reflections on the social responsibility, utility and sustainability of research. The engagement of health professionals in public health activism should stimulate reflection on the interrelation between research, advocacy and social transformation, as well as the ethico-political dimensions of this involvement. Furthermore, it is important to reflect on the relevance of a research practice based on the principles of collective responsibility and transparency in the current moment of economic and systemic crisis.

Objectives

The Workshop seeks to open a discussion on the particular ethical aspects in public health research, experiences with ethical conflicts and strategies for tackling these challenges.

Structure

The Round Table format has been chosen in order to promote a shared discussion and experience exchange. A discussion paper is planned as an outcome of the workshop.

Key messages

- The collective focus of public health research involves specific ethical aspects, including reflections on the social and political responsibilities of research
- In the current situation of systemic crisis, the discussion of the role of public health research for social transformation and its ethico-political dimensions achieves a specific relevance

The social contract revisited

Martin McKee

M McKee
London School of Hygiene and Tropical Medicine, London, UK
Contact: martin.mckee@lshtm.ac.uk

From the earliest days, philosophers have debated the relationship between the individual and the state. Thomas Hobbes argued that individuals must concede some of their rights to a superior power if they were to avoid a situation in which life was 'solitary, poor, nasty, brutish and short'. This concession could be viewed as a social contract between the individual, who would surrender certain rights, such as to kill another person, in return for the protection of the state. Hobbes' contemporary, John Locke, took a more minimalist view, seeing the status simply a neutral judge between individuals. Later, Rousseau introduced the concept of the general will, whereby people had to be 'forced to be free', surrendering certain rights to the collective rules of society. In subsequent years, these ideas have been further refined by philosophers. However, at their heart is the balance between rights and responsibilities of the individual and the state. This has important, but often overlooked consequences for public health and health systems research. Each individual drives benefit from being cared for in a system based on rigorous evidence, much of which will have been collected on individuals. However, if individuals are asked for consent for the use of their data and they refuse, this may lead to policies that are harmful both to them as individuals and to the population in general. In practice, there are situations in which individuals may withhold consent, and others, such as notification of infectious disease, where they may not. My contribution will explore the extent to which there is, or should be, a social contract between the individual and the health system, whereby each individual surrenders a degree of autonomy in return for a collective benefit.

Ethical aspects of public health research – individual, corporate and social perspectives

Peter Schröder-Bäck

P Schröder-Bäck
Maastricht University, Maastricht, The Netherlands
Contact: peter.schroder@maastrichtuniversity.nl

Ethical aspects of medical research have been systematically discussed for many years now. An important milestone in the development of ethical norms for health research is the so called Belmont Report that focusses the norms beneficence, respect for persons and justice.

Following a more recent division of normative leading questions by Tom Beauchamp, one can ask what the responsibilities of public health and epidemiological researchers are towards: a) research subjects, b) the society, c) financing institutions, but also d) colleagues. Besides this individual ethics perspective – to which one should also add questions of individual virtues – one could also add a social ethics perspective: What ethical responsibilities do public institutions steering e.g. research funds and corporate organizations have for and in public health research.

In this presentation, a matrix of leading questions is presented and examples are discussed drawn from conflicts that have recently been discussed in public health research such as the construction of research subject categories (e.g. ethnicity), fraud in research, epidemiological research involving children etc.

This presentation thus adds an inventory of ethical aspects and questions to the debate but also introduces norms, values and even virtues of researchers.

Implementation Research Ethics: an outline and defence

Angus Dawson

A Dawson
University of Sydney, Sydney, Australia
Contact: angus.dawson@sydney.edu.au

Most research ethics has focused on clinical trials but this is a poor model for public health research. This talk, building upon previous work, argues that much public health research involves the monitoring and evaluation of existing routine and emergency programmes and the ethical issues are therefore different. First, traditional issues discussed in research ethics such as consent and data sharing need to be approached in a different way because programmes will have other means of gaining legitimacy and justification than individual-level protections. Second, evaluation raises unique ethical issues relating to how programmes might be changed during their lifetime, due to real-time learning about how improvements for participants might be made. This talk outlines the relevant ethical issues relating to such implementation research and defends these activities from some possible objections.

Waste of knowledge in public health: conclusions from an interdisciplinary workshop organised by the Spanish Society for Public Health and Health Administration

Andrea Buron

A Buron[1,2,3], *J M Carrasco*[4,5], *I Hernández*[6,7], *A Segura*[8,9]
[1]Hospital del Mar, Barcelona, Spain
[2]IMIM, Barcelona, Spain
[3]REDISSED (Health Services Research on Chronic Patients Network)
[4]Atlantes Research Programme, Institute for Culture and Society, Universidad de Navarra, Navarra, Spain.
[5]IDISNA (Navarra Institute for Health Research), Navarra, Spain
[6]Universidad Miguel Hernández, Alicante, Spain
[7]Ciberesp, Spain
[8]Departament de Salut, Generalitat de Catalunya, Barcelona, Spain
[9]Universitat Autònoma de Barcelona, Barcelona, Spain
Contact: buron.andrea@gmail.com

In September 2015 around 20 experts in public health and ethics will be meeting in the Summer Public Health School of Menorca to discuss, during 2 days and from an ethical perspective, the waste of knowledge in health. This workshop, organised by the Ethics working group of SESPAS (Spanish Society for Public Health and Health Administration) together with the Menéndez Pelayo International University (UIMP) and the Grifols i Lucas Foundation, will try to answer questions like for instance 'is it ethical to devote public resources to fund health research areas whose objectives do not answer relevant clinical or public health issues or whose outcomes are not translated into practice?', 'What kind of responsibility, if any, do researchers, public health agencies, the Administration, etc. have for translating health research into practice?'.

To answer these and other questions the event will gather researchers, ethicists, health professionals, and people with experience or influence over the political agenda. After an introductory session with all participants, the debate will take place in smaller groups to discuss four different topics in parallel: 1) from the prioritisation of health research areas to their applicability; 2) knowledge translation into clinical practice; 3) knowledge translation into public health; 4) knowledge translation into the media and other ways of knowledge dissemination.

The event in Menorca will conclude with a set of recommendations and unsolved challenges which will be shared and discussed during this workshop.

Social responsibilities of qualitative and ethnographic public health research in the current moment of systemic crisis: Reflections from a poststructural and reflexive research ethics framework

Amets Suess

A Suess
Andalusian School of Public Health, Granada, Spain
CIBER-ESP, Centre for Biomedical Network Research – Epidemiology and Public Health, Spain
Institute for Bio-Health Research of Granada (ibs.Granada), Spain
Contact: amets.suess.easp@juntadeandalucia.es

From a poststructural and reflexive research ethics framework, I would like to open a reflection on ethical aspects in qualitative and ethnographic public health research focused on the analysis of situations of social vulnerability in the current moment of economic and systemic crisis.

These reflections include a self-reflexive review of the own social roles, positions and privileges in the research process, from a poststructural conceptualization of identities and commitments as multiple, overlapping and intersectional: How to question social privileges in the research process? How to bridge status differences and deconstruct power dynamics? Which challenges, opportunities and ethico-political responsibilities entail a double academic-activist perspective?

Furthermore, ethical aspects related to the research design are reviewed: Which roles are given to the members of the community in situation of social vulnerability in the research process? Research on, with or by the community?

From a poststructural questioning of research as an instrument of categorization and social norm production, the question arises as to how to avoid a further pathologization and stigmatization of already pathologized and stigmatized population groups. The observation of an emotional impact in the re-narration of traumatic experiences points out the need for reviewing risk-benefits balances: Qualitative and ethnographic interviewing as a practice of risk, accumulation of academic capital or opportunity for giving meaning to relevant experiences and promoting social change?

Finally, questions arise regarding the social responsibility and utility of research, and its specific relevance in the current situation of systemic crisis: Is it ethical to receive funding for researching economic precariousness and social exclusion in a moment of public budget cuts? Which social utilities, responsibilities and commitments does public health research acquire in the current moment of systemic crisis?

2.G. Regular workshop: Observe the gap: Possibilities and approaches for routine monitoring of social health inequalities

Organised by: EUPHA sections on Public Health Monitoring and Reporting and on Public Health Economics
Contact: Nicole.Rosenkoetter@lzg.nrw.de

Chairs: Nicole Rosenkötter, Tek-Ang Lim

Regular information about the development of socio-economically driven health inequalities are of utmost importance for integrated health policy making that follows a whole-of-government and whole-of-society approach. This workshop directly connects to the main results of the 2014 European Public Health Conference (EPHC) in Glasgow. While last years conference called to 'Mind the Gap' that is generated by the social determinants of health, we aim to explore at the 2015 EPHC the available resources and tools for routine monitoring of social health inequalities in order to 'Observe the Gap' and to inform public (health) policy. However, to enable routine monitoring of social health inequalities it is necessary to link health and socio-economic data which poses problems for many countries and regions in Europe.

In this workshop we will present existing approaches for the routine monitoring of social health inequalities and thereby support good practice exchange. The workshop comprises two presentations with a European perspective and two nationally-focussed presentations. First, approaches for monitoring inequalities in life expectancy by educational attainment on European Union (EU) member state level (plus EFTA and candidate countries) are presented and differences between countries will be shown. This presentation is followed by a presentation of study results on the possibilities to monitor social disparities in stillbirth and neonatal mortality rates in Europe. Next, a national perspective is taken (the Netherlands) to present an approach for routinely monitoring socio-economic differences in healthy life expectancy and respective disparities within the Netherlands. In the last contribution a French system to monitor social inequalities for various health outcomes will be presented. In contrast to the other presentations in this workshop, the French system mainly focusses social disparities and health that are linked on an ecological level rather than on individual level. After that, there will be ample time to exchange experiences in routine monitoring of social health inequalities and to discuss the advantages and disadvantages of the presented approaches as well as the resources necessary.

The added value of this workshop is that it provides an overview of the possibilities and state of affairs in routine monitoring of social health inequalities. It is targeted at everyone with an interest in public health monitoring and reporting, especially the monitoring of health inequalities and the social determinants of health. The workshop is a joint activity of the EUPHA sections on Public Health Monitoring and Reporting and Public Health Economics.

Key messages

- Regular information about the development of socio-economically driven health inequalities are of utmost importance for integrated health policy making
- International and national approaches exist that can support good practice exchange and further development of routine monitoring of social health inequalities

Inequalities in life expectancy by socioeconomic status in the EU

Veronica Corsini

V Corsini
Unit F2 – Population, Eurostat, Brussels, Belgium
Contact: Veronica.Corsini@ec.europa.eu

EU countries are facing substantial health inequalities in their population based on socio-economic status, with negative consequences for health, social cohesion and economic development. While overall levels of mortality have declined for all socio-economic groups, relative mortality differentials between higher and lower socio-economic groups have remained unchanged or even increased. In all countries, mortality, health and the age that people die at are influenced by socio-economic factors such educational attainment, employment status and income level.

Eurostat, the Statistical Office of the European Union, started in 2009 a project to develop comparable information about mortality by educational attainment on a regular basis for EU countries. Educational attainment was chosen as proxy for socio-economic status because, provided a standard classification is used, it can be determined for all individuals and lower non-response can be expected as compared to, e.g., income; it is easier to collect and more stable at adult ages than, e.g., occupation. Life expectancy was chosen as mortality indicator to be calculated.

Since reference year 2007, Eurostat requests countries to transmit on voluntary basis in context of the annual demographic data collection a breakdown of population and number of deaths by age, sex and highest education attained. The calculation of life expectancy and mortality differentials by educational attainment level can be done directly for the countries providing both deaths and population series by the requested breakdown. For the countries not providing a breakdown for the population at risk, information on the percentage shares of the population by age, sex and educational attainment group coming from the EU LFS is used to obtain the needed breakdown from the demographic population. This cross-sectional approach is currently producing results for 18 EU Member States, EFTA and Candidate Countries to the EU, for the period 2007–2013.

Monitoring the gap in perinatal health in Europe: can we use routine datasets for cross-national comparisons of social disparities?

Jennifer Zeitlin

J Zeitlin[1], M Gissler[2,3], C Prunet[1], M Delnord[1], A Mohangoo[4], A Macfarlane[5], S Alexander[6], for the Euro-Peristat Scientific Committee[7]
[1]INSERM, Obstetrical, Perinatal and Paediatric Epidemiology Research Team, Centre for Epidemiology and Biostatistics (U1153), Paris-Descartes University, Paris, France
[2]THL National Institute for Health and Welfare, Information Department P.O.BOX 30. 00271 Helsinki, Finland
[3]NHV Nordic School of Public Health, Gothenburg, Sweden
[4]Netherlands Organization for Applied Scientific Research, TNO Healthy Living, Department Child Health, Leiden, The Netherlands
5School of Health Sciences, City University London, London, England
[6]Université Libre de Bruxelles, School of Public Health, Brussels, Belgium
[7]The Euro-Peristat Scientific Committee: Gerald Haidinger (Austria), Sophie Alexander (Belgium), Pavlos Pavlou (Cyprus), Petr Velebil (Czech Republic), Anne-Marie Nybo Andersen (Denmark), Luule Sakkeus (Estonia), Mika Gissler (Finland), Béatrice Blondel (France), Nicholas Lack (Germany), Aris Antsaklis (Greece), István Berbik (Hungary), Helga Sól Ólafsdóttir (Iceland), Sheelagh Bonham (Ireland), Marina Cuttini (Italy), Janis Misins (Latvia), Jone Jaselioniene (Lithuania), Yolande Wagener (Luxembourg), Miriam Gatt (Malta), Jan Nijhuis (Netherlands), Karin van der Pal (Executive board member, Netherlands), Kari Klungsoyr (Norway), Katarzyna Szamotulska (Poland), Henrique Barros (Portugal), Mihai Horga (Romania), Jan Cap (Slovakia), Natasa Tul Mandić (Slovenia), Francisco Bolúmar (Spain), Karin Gottvall (Sweden), Sylvie Berrut (Switzerland), Alison Macfarlane (United Kingdom). Project coordination: Jennifer Zeitlin, Marie Delnord, Ashna Hindori-Mohangoo
Contact: Jennifer.zeitlin@inserm.fr

Context

Low socioeconomic status is a major risk factor for adverse pregnancy outcomes, including stillbirth and neonatal death. We assessed whether data exist in routine systems to compare social disparities in stillbirth and neonatal mortality rates in Europe.

Methods

We used 2010 data from routine sources in 29 European countries in the Euro-Peristat project. Aggregate data were collected on stillbirths, neonatal deaths and live births by three socioeconomic indicators: maternal education and maternal and paternal occupation. We mapped these data to the ICSED-97 classification for education and the ISCO-08 classification for occupation, as recommended by Euro-Peristat.

Results

22 out of 29 (76%) countries provided stillbirth rates by one of the three SES indicators and 15 out of 29 (52%) provided these data for neonatal mortality rates. Stillbirth and neonatal mortality rates by maternal education were available in 18 and 12 countries respectively, while occupation was available in 12 and 7 countries, respectively. Education classifications could be mapped into ISCED-97, but level of detail varied (from 4 to 11 categories) and some countries had no separate group for primary schooling (Austria, Finland). Occupation could be mapped to the ISCO-08 grouped classification and were fairly homogeneous for fathers. There was large variation for mothers: 0% to 47% for no occupation and 0.2 to 40% for managers/professionals. It was unclear how father's occupation was coded when mothers were single, as there was no separate code in most classifications.

Conclusions

It is possible to monitor social disparities in perinatal health in many countries, especially for stillbirths. Mothers' education had better availability and comparability than mothers' or fathers' occupation. The difference in data availability for stillbirths and neonatal deaths suggests that linkage of births and deaths would improve monitoring capacity in many countries.

Monitoring socio-economic differences in healthy life expectancy in the Netherlands

Marjanne Plasmans

H Boshuizen[1], JW Bruggink[2], F van der Lucht[1], W Nusselder[3], MHD Plasmans[1], A Verweij[1]
[1]National Institute of Health and the Environment (RIVM), Bilthoven, The Netherlands
[2]Statistics Netherlands (CBS), Heerlen/Den Haag, The Netherlands
[3]Department of Public Health from Erasmus Medical Centre, Rotterdam, The Netherlands
Contact: marjanne.plasmans@rivm.nl

Background

In the Netherlands, like in other countries, health differs between those with a low and a high socio-economic position. This is shown by several figures on socio-economic differences in health. Insight in the meaning of these figures and their trends is a basis for public health policy (e.g. the Dutch National Prevention Program aims to increase healthy life expectancy of those with a lower education) and for policy evaluation in this field. However, this insight was hampered because different figures were going around. For policy aims such an array of figures creates confusion. Therefore, the Dutch National Institute of Health and Erasmus MC, in consultation with Statistics Netherlands, have proposed a standardized measurement instrument (indicator) to measure socio-economic differences in healthy life expectancy.

Methods

Based on a literature review an indicator was proposed for monitoring socio-economic differences in healthy life expectancy. The aim was to obtain an indicator that is sensitive to both the magnitude of differences in health between socio-economic groups, and the amount of socio-economic inequality in the population.

Results

The proposed indicator gives the difference in healthy life expectancy between the 10th and 90th percentile of socio-economic position. The indicator uses the self-perceived health status of individuals as the measure of health and it uses educational level as the measure of socio-economic status. Data on mortality, health, and educational level are linked at the individual level.

Conclusion

An indicator for monitoring socio-economic differences in healthy life expectancy has been proposed that will be used for policy on health disparities in the Netherlands.

During the workshop, we would like to exchange experiences and ideas about monitoring health disparities. We also will further discuss arguments for choosing this indicator, and present the first results of the calculation of this indicator for the Dutch population.

Surveillance of social inequalities in health in France

Daniel Eilstein

D Eilstein, M Gorza
French Institute for Public Health Surveillance (InVS), Scientific Direction, Saint-Maurice, France
Contact: d.eilstein@invs.sante.fr

In France inequalities are observed in life expectancy (up to 10 years gap between extreme categories) and number of healthy life years. Social differences are found for most major diseases. Social inequalities in health (SIH) start from childhood and reinforce over lifetime.

The French Institute for Public Health Surveillance (InVS) monitors the health of the French population. Surveillance systems are based on the permanent collection of data, repeated surveys, administrative and medical databases. The objective is to provide evidence to support decision-making in public health.

In order to improve the performance of decision making and to evaluate public health interventions, the InVS takes the socio-economic dimension into account – at the individual level (socio-economic variables) and at geographic levels (deprivation indices). In addition, the InVS is about to merge with the French Institute in charge of disease prevention and health education as from early 2016 which raises interesting issues of continuity between surveillance, research, prevention and decision in the field of SIH.

Currently, SIH are monitored for the following outcomes: respiratory infections, vaccine-preventable diseases, sexually transmitted infections, HIV, hepatitis B/C, cancer screening, type II diabetes, suicide in prison, health of prisoners, nutrition, mortality by occupational categories, and housing and health. Two main indices are used at an ecological level in the surveillance models for the entire French population: the European deprivation index (data from the European Union statistics on income and living conditions and census data are analyzed at the smallest geographical census unit level), and the French deprivation index (census and tax data are analyzed at the smallest administrative unit level).

In parallel to the surveillance of the entire population, the program intends to monitor, in a multidisciplinary way, the health of vulnerable populations.

2.H. Regular workshop: Health literacy in Europe: from measurement to targeted interventions

Organised by: NIVEL, Utrecht, the Netherlands
Contact: j.rademakers@nivel.nl

Chairs: Helle Terkildsen Maindal, Jany Rademakers

Health literacy is increasingly being recognised as a crucial determinant of health and health inequality all over the world. Health literacy enables people to make judgements and take decisions in everyday life concerning healthcare, disease prevention and health promotion to maintain or improve their quality of life as their lives progress (Sörensen et al., 2012). Most research on health literacy has been conducted outside Europe, predominantly in the United States. Recently, however, the topic is on the public health and research agenda in Europe as well. First studies have focused on the development and validation of measurement instruments. The international comparative HLS-EU study, which was conducted between 2009 and 2012, provided insight in the level of health literacy in eight European countries. Since then, more European countries started to measure the levels of health literacy in their populations. Recent instruments, such as the Health literacy Questionnaire (HLQ), conceptualize health literacy as multidimensional, adding psychological and social domains to the mere functional aspects. The HLQ also highlights the responsibility that practitioners and organisations have in the generate health literacy-responsive environments. These new ways of looking at health literacy allows for more possibilities to generate and tailor interventions to the needs of specific target groups and the population as a whole. Recent studies focus on effective ways to develop and implement health literacy interventions. In this workshop, an overview with respect to health literacy policy and interventions in EU Member States will be followed by presentations of studies in several countries. From these studies, the process from measuring health literacy to intervention development is explained through current projects in the field.

Key messages

- Many European countries are active in developing policies and actions on health literacy. However, few interventions are guided by evidence and evaluation research is generally lacking
- Including different dimensions in the measurement of health literacy, including organizational responsiveness, will ensure appropriately tailored interventions that generate equitable outcomes

A snapshot across Europe: policies, interventions and actions on health literacy improvement in Europe uncovered in the HEALIT4EU study

Jany Rademakers

J Rademakers, J Hofstede, I van der Heide, W Devillé, M Heijmans
NIVEL – Netherlands Institute for Health Sciences Research, Utrecht, the Netherlands
Contact: j.rademakers@nivel.nl

In a recent EU study (HEALIT4EU) evidence-based interventions and policies and programs to improve health literacy in

European Member States were inventoried. From a systematic literature review we learned that evidence-based interventions of which the effectiveness is studied are virtually lacking in Europe. Only 20 studies could be retrieved. Nevertheless, health literacy as a policy topic has gained attention in the European Member States during recent years, especially in Western Europe and countries that were involved in the HLS-EU study. In our study, 82 programmes and activities on health literacy in Europe were identified. In many countries, however, the concept of health literacy has not 'caught on' yet. In general, most countries are still in the early stages of addressing health literacy. Only six European Member States actually have a national policy or programme on health literacy. Initiatives in countries are often fragmented, largely depending on specific stakeholders, good will and enthusiastic initiatives and accidental funding. This can result in less effective use of means and fewer exchange of knowledge and 'best practices' as desirable. In general, a more programmatic and evidence-based policy to health literacy in EU Member States will be beneficial with regard to the outcomes of these efforts.

Health literacy data in people with chronic conditions call for awareness of targeting interventions

Helle Terkildsen Maindal

HT Maindal[1], *K Friis*[2]
[1]Department of Public health, Health Promotion and Health Services Research, Aarhus, Denmark
[2]Public Health and Quality Improvement, Central Denmark Region, Aarhus, Denmark
Contact: htm@ph.au.dk

Health literacy is a key aspect of patient-centred healthcare. We aimed to determine health literacy competencies in people with long term conditions (diabetes, cardiovascular disease, chronic obstructive pulmonary disease, musculoskeletal disorders, cancer, and mental disorders), and to examine the association between health literacy, socio-economic characteristics and comorbidity across these groups. In a Population-based survey in a representative sample from Central Denmark Region (1/5 of the Danish population) (n = 29,473) we investigated Health literacy measured by two scales from the Danish version of the Health Literacy Questionnaire: (i) ability to understand health information well enough to know what to do, and (ii) ability to actively engage with healthcare providers.

People with long-term conditions reported more difficulties than the general population in core health literacy dimensions; understanding health information and actively engaging with healthcare providers. Different health literacy difficulties were found in people with different conditions. People with low levels of education had lower scores than people with high levels. Furthermore, having more than one chronic disease was associated with lower scores for the ability to engage with healthcare providers and understand health information.

The results call for awareness of targeting interventions based on health literacy data and modifying health services e.g. existing patient education programmes to reduce inequality across long term conditions. At the workshop the data will be presented, and the co-creative processes between local authorities and researchers following the results will be presented.

Using health literacy profiles to tailor interventions to the needs of chronic disease patients

Monique Heijmans

M Heijmans[1], *G Waverijn*[1], *M Rijken*[1], *R Osborne*[2], *J Rademakers*[1]
[1]NIVEL – Netherlands Institute for Health Sciences Research, Utrecht, the Netherlands
[2]Deakin University, School of Health & Social Development, Melbourne, Australia
Contact: m.heijmans@nivel.nl

Health literacy (HL) is an important prerequisite for successful self-management and a determinant of health care use in chronic disease. HL is a multidimensional concept covering several functional, social and psychological dimensions. When developing interventions to improve HL it is an important question on which of these dimensions one should focus to offer care that best fits the needs of individual patients. We surveyed both the health literacy and self-management capabilities of a representative sample of 1.826 patients with chronic conditions or long term disabilities in the Netherlands. The Health Literacy Questionnaire (HLQ) assessed 9 independent HL dimensions. Using cluster analysis we looked for subgroups of patients across the 9 different HL profiles. Cluster analysis produced a 7-cluster solution, identifying stable and clinically meaningful subgroups of patients. In each subgroup patients had at least some strengths but also reported limitations on others HL dimensions. These pattern offering concrete suggestions to tailor support to the needs of patients. In addition, we found that patients in the 7 subgroups differed significantly with respect to educational level, number and type of chronic diseases, severity of disability, living situation and the level of urbanity of their residence pointing to the importance of taking context factors into account when developing interventions to improve HL skills. For example, people with chronic illnesswho were living alone require more support with getting help from their social environment and finding and understanding health information compared with people we had a partner or children. While some subgroups might have a similar total score, the actions for improving their outcomes would differ.

Using health literacy to co-develop health intervention programs with segregated Roma in Slovakia: A research design proposal

Peter Kolarcik

P Kolarcik[1,2], *A Belak*[1], *E Cepova*[1], *A Madarasova Geckova*[1,2]
[1]Department of Health Psychology, Medical Faculty, P.J. Safarik University, Košice, Slovakia
[2]Olomouc University Social Health Institute, Sts Cyril and Methodius Faculty of Theology, Palacky University, Olomouc, Czech Republic
Contact: peter.kolarcik@upjs.sk

Health inequalities among different socioeconomic and marginalised ethnic groups are documented, however, they are not well explained by socio-economic disparities and cultural differences. Health literacy, the ability to understand, access and use health information and health services, is a potentially valuable concept for the examination of the mechanisms behind health inequalities. We adapted and validated Australian Health Literacy Questionnaire (HLQ) to enable fine-grained studies of health inequalities across Roma people within segregated communities and the general population.

Slovakia has the highest proportion of Roma people in the EU (7.2%). Health of Roma people, especially of those living in segregated communities is the poorest of all Roma. Consequently, health-equity policy and programs have been mobilised through large-scale state-backed health-mediation programs. This scenario is common to several countries (Bulgaria, Macedonia, Romania, Serbia, Slovakia, and Ukraine). In Slovakia, the Ministry of Health's health-mediation project, Healthy Communities, recently received funding to reach into new Roma communities over the next 7 years.

The Healthy Communities project has not been subjected to formal program evaluation. Addition of new communities provides a unique opportunity to measure its effect on related-health skills such as health literacy. The program in segregated Roma communities in Slovakia will ne evaluated in a cohort study. Data will be collected in adult Roma in 3 types of communities that use the health mediators program: 1. health mediators already present; 2. new communities involved in the program; 3. communities not involved in the program. Structured interviews with N = 300-500 Roma respondents from each type of community will be conducted at baseline period (t0), after 2 Years (t1), after 4 Years (t2) and after 7 years (t3) of the project duration.

Application of the Ophelia process in a deprived community setting in Newcastle UK: a model for local community engagement and systematic intervention development

Simon Eaton

Simon Eaton[1], Sue Roberts[1], Alison Beauchamp[2], Richard H Osborne[2]
[1]Year of Care Partnerships, Northumbria Healthcare, North Shields, UK
[2]Public Health Innovation Unit, Deakin University, Melbourne, Australia
Contact: simon.eaton@nhct.nhs.uk

The Ophelia (OPtimizing HEalth LIteracy) approach recognises that improvements in public health will depend not just on a better understanding of the health literacy patterns of individuals and populations but also on the ability of local health systems to respond positively to this. We collaborated with local community and clinical groups to explore how service improvements could be designed around the health literacy characteristics of people living in a deprived area of Newcastle upon Tyne.

Health literacy from 131 community members was collected with the 9-scale Health Literacy Questionnaire (HLQ) via community worker interview or self-report. Cluster analysis identified groups with similar patterns of HLQ scores to inform vignettes. These revealed how living with a particular health literacy profile might affect a person's health and were presented in workshops to a) community members and b) local clinicians. Participants were asked 'What could be done to help improve engagement and outcomes for each of the people described?'

In total, 11 different clusters were identified, each showing distinctly different patterns of HLQ scores. In the workshops 110 intervention elements were identified, many were similar across the groups, and ranged from self-management, local community action, service redesign, to policies.

The HLQ revealed the needs of a disadvantaged population and made these tangible to service users and providers alike. This enabled innovative, practical and locally owned interventions to emerge to drive service improvement and redesign. The project confirmed the practicality of Ophelia for the first time in the EU, with HLQ collection proving feasible and the Ophelia workshops engaging and highly productive.

2.I. Regular workshop

Organised by: European Commission, DG Development Cooperation

2.K. Regular workshop: Innovative care practices for people with multimorbidity in Europe

Organised by: ICARE4EU project team, coordinated by NIVEL
Contact: icare4eu@nivel.nl

Chairs: François Schellevis, Ewout van Ginneken

An estimated 50 million people in the European Union live with multiple chronic diseases and this number is expected to increase in the near future. As multimorbidity deeply impacts on many domains of life, providing integrated care that is tailored to the specific health care and social needs of people with multimorbidity seems most appropriate. However, most European healthcare systems are not designed to provide integrated care, and chronic disease management programs which do provide integrated care are usually disease-specific. However, innovative integrated care practices that are organized around patients' needs rather than their specific disease(s) are currently being developed and implemented at a local or regional level in many European countries. These care practices may be valuable examples to learn from for other regions or countries that are searching for novel approaches to improve care for people with multimorbidity.

The EC funded ICARE4EU project (2013-2016) identified 101 care practices in 24 European countries that have been implemented mostly on a local level to provide integrated care for people with multiple chronic conditions. As integrated care should be patient-centred, proactive and well-coordinated multidisciplinary care, using new technologies and supporting patients' self-management and the collaboration between care providers, the ICARE4EU team analysed the strengths and weaknesses of these care practices from four perspectives: 1. their patient-centredness, 2. their level and methods of integration of services, 3. their use of eHealth technologies to support the delivery system, collaboration and individual skills of caregivers and patients, and 4. their financing system. In addition, eight practices (all in different European countries) that were considered as 'high potential' from one or more of these perspectives were visited by the ICARE4EU team and their characteristics, pros and cons were studied in depth.

The aim of this workshop is to discuss the results of our analysis with a wide audience of researchers and policymakers interested in research and policy questions on how to design and implement integrated care for people with multimorbidity that is sustainable and of high quality in European countries. The workshop starts with an introduction on the challenges attending the provision of care for people with multimorbidity in Europe and an overview of the main characteristics of the 101 identified integrated care practices that respond to these challenges each in their own way. In the second presentation the management and professional issues of the integration of care services is addressed. The third presentation answers the question on how, and to what extent, patient-centredness is improved in these care practices. The use of eHealth technologies in these care practices is the central theme of the fourth presentation. In the last presentation the issue of how these care practices are financed is addressed.

Key messages

- Integrated care practices for people with multimorbidity in Europe differ in implementation
- Differences in management, financing, eHealth, and patient-centredness provide clues for future practices

Innovative practices to care for people with multimorbidity in Europe

Iris van der Heide

I van der Heide[1], S Snoeijs[1], W Boerma[1], FG Schellevis[1], PM Rijken[1,2], on behalf of all ICARE4EU partners
[1]NIVEL, Netherlands Institute of Health Services Research, Utrecht, The Netherlands
[2]VU medical center, Amsterdam, The Netherlands
Contact: i.vanderheide@nivel.nl

Background

With this first presentation, the challenge of care for people with multimorbidity will be discussed and characteristics of 101 integrated care practices targeting people with multimorbidity will be presented. Based on these characteristics, a typology of integrated care practices addressing multimorbidity will be presented.

Methods

Integrated care practices addressing multimorbidity were identified by country experts in 24 European countries. Contact persons provided data on their characteristics, implementation and outcomes. Besides descriptive analysis, we conducted cluster analysis to explore whether some prototypes of integrated practices addressing multimorbidity could be distinguished based on their characteristics (e.g. target group, main objectives, organizations and care providers involved, organizational structures).

Results

Of the 101 integrated care practices, 58% focused on multimorbidity in general (irrespective of the type of chronic diseases of the patients) and 42% on specific combinations of diseases. Primary care practices were involved in 69% of the practices. Primary care practices, nursing homes, social care and community services were significantly more often involved in practices focusing on multimorbidity in general than in practices focusing on specific diseases. Medical specialists were involved in 83% of the practices focusing on specific combinations of diseases, but only in 54% of the practices focusing on multimorbidity in general. Some prototypes of practices could be distinguished, mainly based on variation in the involvement of primary care.

Conclusion

European practices addressing multimorbidity often have similar objectives, but differ in the organizations or care providers involved. The next step in the ICARE4EU project is to reveal whether the occurrence of practices of certain types relate to specific characteristics of a country or region such as its population or the structure of its healthcare system.

Improving the delivery of integrated care for people with multimorbidity

Anneli Hujala

A Hujala, H Taskinen, S Rissanen
University of Eastern Finland, Kuopio, Finland
Contact: anneli.hujala@uef.fi

Issue

In order to develop services for people with multiple chronic conditions, new ways of delivering care are needed. Current fragmented, single-disease based health and social care systems do not meet the needs of these patients.

Description of the problem

Providing flexible and seamless care for people with multiple problems requires integration between care providers. Both organizations and professionals have to come ‘out of the silos’ and work together to improve the care processes. In the ICARE4EU project we explored whether and how integration was advanced at the practical level in European integrated care practices for people with multimorbidity.

Results

Over 80% of the contact persons of the 101 integrated care practices reported that the practice improved integration of care services. However, most integrative actions took place within the primary care. Primary care was involved in 70% of the practices, while e.g. university hospitals in 41% and social care in 27% of the practices. The most common practices used were multiprofessional care groups (68%) and multiprofessional development groups (54 %). Care pathways were at least a substantial part of 55% of the practices. Case managers for patients were assigned in 41% of the practices. We present promising practices of three projects. The Finnish POTKU project introduces a care pathway for people with multimorbidity, the Spanish Strategy for Chronic Care in Valencia a case manager model based on two new nursing roles integrating the care process between primary and specialized care. The Danish example is the Clinic for Multimorbidity and Polypharmacy at Silkeborg Regional Hospital.

Lessons

Several different promising tools and practices have been developed and implemented to improve the care of people with multimorbidity. However, many of these practices cover only part of the care sector and do not address the integration between primary care and secondary care or between health and social care.

Improving patient-centredness of care practices for people with multimorbidity

Sanne Snoeijs

S Snoeijs[1], W Boerma[1], FG Schellevis[1], PM Rijken[1,2]
[1]NIVEL, Netherlands Institute of Health Services Research, Utrecht, The Netherlands
2VU medical center, Amsterdam, The Netherlands
Contact: s.snoeijs@nivel.nl

Issue

For people with multimorbidity, a patient-centred approach of their care is very important. Because of the many health problems, the treatment goals to strive for are not always obvious, but should be extensively discussed with the patient. The patient’s personal goals should be taken as a starting point when prioritizing treatment goals, and his preferences and resources should be taken into account when deciding about the type(s) of treatment or care.

Description of the problem

Providing patient-centred care may not be easily realized in daily practice, as it requires specific skills of healthcare providers, and characteristics of the delivery system may be hindering. In the ICARE4EU project we explored whether and how patient-centredness was improved in European integrated care practices for people with multimorbidity.

Results

Almost all contact persons of the 101 integrated care practices reported that the practice improved patient-centredness (92%), but there was a wide variety in practices and tools used for this purpose. For instance, motivational interviewing by care providers was applied in 52 practices and case managers were appointed in 41 practices. In 70 practices individual care plans were introduced, but implementation of such plans was often lower than intended. Reported barriers to provide more patient-centred care were e.g. inadequate knowledge of patients (61%), lack of time (56%), inadequate knowledge or skills of care providers (45%) and lack of a clear vision of managers (40%). To illustrate successful approaches as well as their barriers, we will present two practices in more detail: the Finnish POTKU project (Putting the Patient at the Driver’s Seat) and another highly patient-centred European practice.

Lessons

A positive attitude of healthcare providers is key, but not sufficient to provide care that is really patient-centred. Structural changes are needed in all domains, e.g. training, care delivery, information systems and financing.

Using eHealth to improve integrated care for older people with multimorbidity

Francesco Barbabella

F Barbabella, MG Melchiorre, S Quattrini, R Papa, G Lamura
INRCA, Ancona, Italy
Contact: f.barbabella@inrca.it

Issue

The exploitation of eHealth tools in integrated care practices addressing multimorbidity might be a strong driver for facilitating access to the services provided to people with multiple chronic diseases. This is particularly true in the case of older people living in the community, since eHealth could enhance and reinforce care services at home, improving independent living and security of patients.

Description of the problem

One of the ICARE4EU project aims, was to explore whether and which kind of eHealth tools are implemented in integrated care practices for older people with multimorbidity across Europe. In fact, eHealth tools could differ widely across practices, requiring specific know-how by users and health professionals for using and maintaining technology-based solutions, adequate financial resources, compatible organisational and cultural environment with innovations.

Results

The ICARE4EU project selected 101 integrated care practices in 24 European countries, of which 85 included the provision of at least one eHealth tool. Out of 50 practices addressing needs of older people, 42 included some eHealth solution aimed at: enhancing digital communication (64%); monitoring care processes (58%); providing decision support systems (60%); supporting patients' self-management (32%). Two promising approaches exploiting eHealth are presented in detail: the 'TeleRehabilitation project: Post ICU patient telerehabilitation services' at the Nicosia General Hospital and the 'Strategy for chronic care' by the Regional Department of Health in Valencia.

Lessons

The use of eHealth seems to have many benefits in terms of improvement of integration and management of care, as well as quality of care. However, to realize this benefits, it is important to arrange adequate technical support, legislative frameworks and training of users and health professionals.

Innovative financing methods to improve integrated care delivery for people with multimorbidity

Verena Struckmann

V Struckmann, W Quentin, E van Ginneken
Technical University Berlin, Berlin, Germany
Contact: Verena.struckmann@tu-berlin.de

Issue

Patients with multimorbidity have complex care needs from different healthcare providers who have to collaborate to integrate the provision of care. Financing schemes usually do not include arrangements for collaboration between health care providers.

Description of the problem

The number of people with multimorbidity in European countries is increasing, which requires new ways of organizing and financing their care.

Results

Different practices providing integrated care to multimorbid patients exist in European countries. We identified 101 integrated care practices in 24 European countries. The vast majority of these practices paid providers as for usual care. However, several practices are experimenting with new models of paying providers. In 27 practices providers received financial incentives for their participation in the practice, depending on the type of provider or specific practice-related arrangements. Ten practices offered bundled payments for all participating providers or part of the participating providers. In 17 practices pay-for-performance approaches were applied, where payments were adjusted for quality of provided care, with most practices using structure or outcome indicators as quality measures. Practice managers reported that savings were achieved in 45 practices and in 16 practices care providers profited from the cost savings. Two particularly interesting practices will be presented in more detail of which one is the German Gesundes Kinzigtal program.

Lessons

Most integrated care practices in Europe use the existing regular financing schemes for the care for patients with multiple chronic conditions. In a small number of practices innovative payment methods are used to facilitate collaboration of health care providers and to promote higher quality of care.

2.L. Oral presentations: Work and health 2

Predictors of Wellbeing at work

Ingrid Anderzén

I Anderzén[1], P Lindberg[2], T Karlsson[2], A Strömberg[3], S Gustafsson[2]
[1]Department of Public Health and Caring Sciences, Uppsala University, Sweden
[2]Department of Occupational and Public Health Sciences, University of Gävle, Sweden
[3]Department of Social Work and Psychology, University of Gävle, Sweden
Contact: ingrid.anderzen@pubcare.uu.se

Background

The concept of healthy workplace has been defined as an organization that maximizes the integration of worker goals for wellbeing and company objectives for profitability and productivity. About 24% of the working population in Sweden report to have had work-related disorders during the last 12 months. In order to achieve a sustainable working life it is likely that strategies and actions from different and new angles are needed. The present study is a part of a larger study (the GodA -study; a Swedish acronym for good work environments and healthy workplaces) and aims to investigate how work environment factors, work ability, work motivation, work and life balance predict well-being at work.

Methods

The GodA study is a 2-year follow up study in Sweden with a survey feedback design in three companies. One of the companies serves as 'intervention-company', the other two as controls. A baseline questionnaire was sent out 2013 and 2015 a follow up survey has been administered. Data from the baseline measurements have been analysed with univariate and multivariate linear regression analyses.

Results

A baseline multivariate linear regression model, which included background factors, perceived psychosocial work climate, work environmental factors (motivation, leadership, employee responsibilities, efficacy, work ability, management committed to employee health) and work life balance, showed that psychosocial work climate (B = .48, 95% CI = .27 −.69) leadership, (B = .27, 95% CI = .05- .49), work ability (B = −.12, 95% CI = .03 −.21), motivation (B = −33, 95% CI = .14 −.51) and work life balance (B = −.34, 95% CI = −.57–−.12), were significantly associated factors of well-being at work. (Adjusted R2 = .40, p < .001). Results from the two-year follow up will be presented at the conference.

Conclusions

Results showed that not only work environment factors are important predictors. To maintain a healthy work place a promotion of balance between work and private life is needed.

Key message

- Results showed that not only work environment factors are important predictors

Sustained work status in five years following return to work after mental sickness absence

Giny Norder

G Norder[1,2], *CAM Roelen*[1,2,3], *MW Heymans*[3], *JJL van der Klink*[4], *U Bültmann*[2]
1.ArboNed, Utrecht, The Netherlands
2.Department of Health Sciences Community and Occupational Medicine, University Medical Center Groningen, Groningen, The Netherlands
3.Department of Health Sciences, division Epidemiology and Biostatistics, VU University Medical Center, VU University, Amsterdam, The Netherlands
4.School of Social and Behavioral Sciences, Tilburg University, Tilburg, The Netherlands
Contact: giny.norder@arboned.nl

Background

Mental disorders among workers are increasing in many European countries. Some workers with mental disorders remain at work while others report sick. Mental disorders account for one-third of all disability benefits across OECD countries. Disability pension distances workers from the labor market and may result in poverty and further deterioration of mental health. Therefore, sick-listed workers should be encouraged to re-enter work as soon as their mental health condition permits. This register-based longitudinal study investigated work status in the years following return to work (RTW) after mental sickness absence (SA).

Methods

Five-year longitudinal cohort study including 6678 production workers. Work status (employed vs left employment) and reasons for leaving employment (own request, poor functioning, disability pension, retirement, other) were retrieved from an occupational health register in the five years following RTW after mental SA or the period January 2005–2009 (for workers without mental SA).

Results

A total of 4612 workers were eligible for analysis; 552 workers had mental SA and 4061 workers did not have mental SA. In the five years after RTW, 102 (18%) workers left employment compared to 384 (9%) workers without mental SA. In the first year after RTW, most workers resigned at their own request. Thereafter, 25–44% workers with mental SA were dismissed because of poor functioning as compared to 19–36% workers without mental SA. 6% of the workers with and 7% of the workers without mental SA ended up in disability pension.

Conclusions

Workers who recovered from mental SA more often left employment or were dismissed than those without mental SA. Health providers should monitor work functioning after RTW from mental SA, preferably by using instruments such as the work role functioning questionnaire

Key messages

- Workers left employment in the first year after RTW after mental sickness absence more often than workers without mental sickness absence
- Workers were at higher risk of being dismissed because of poor functioning for up to five years after RTW after mental sickness absence as compared to workers without mental sickness absence

A work-focused intervention to increase work participation in common mental disorders

Simon Øverland

S Øverland
Norwegian institute of Public Health, Bergen, Norway
Contact: simon.overland@uib.no

Background

Common mental disorders (CMDs) are a major cause of rising disability benefit expenditures. Work disability is a public health concern and deleterious for individuals, and we urgently need evidence on programs that can increase work participation in CMDs. The aim of this study was to evaluate the effectiveness of work-focused cognitive behavioral therapy (CBT) and individual job support for people struggling with work participation due to CMDs.

Methods

A randomized controlled multicenter trial (RCT) including 1193 participants was conducted. Participants were on sick-leave, at risk of going on sick-leave, or on long-term benefits. The intervention integrated work-focused CBT with individual job support. The control group received usual care. Main outcome was registry based and objectively ascertained work participation at 12-months follow-up, with changes in mental health and health-related quality of life as secondary outcomes.

Results

Compared to usual care, a larger proportion of participants in the intervention group had increased or maintained their work participation at follow-up (44.2% vs 37.2%, $P = 0.015$). The difference remained significant after 18 months (diff: 7.8%, $P = 0.018$), and was even stronger for those on long-term benefits (diff: 12.2%, $P = 0.007$). The intervention also reduced depression ($t = 3.23$, $P = < 0.001$) and anxiety symptoms ($t = 2.52$, $P = 0.012$), and increased health-related quality of life ($t = 2.24$, $P = 0.026$), more than usual care.

Conclusions

A work-focused CBT and individual job support was more effective than usual care in increasing or maintaining work participation for people with CMDs. The effects were profound for people on long-term benefits. This is the first large-scale RCT to demonstrate an effect of a behavioral intervention on work participation for the large group of workers with CMDs and offer promising evidence for targeted preventive efforts against permanent work disability.

Key messages

- Work-focused therapy and individual job support with an emphasis on early re-entry to work is better than usual care to increase or maintain work participation for people with common mental disorders
- This trial offers urgently needed evidence on how to help the many who struggle with work participation due to common mental disorders

The impact of burnout on health-related quality of life in the German working population (2011-2012)

Grit Müller

G Müller, U Rose, G Freude
Federal Institute for Occupational Safety and Health, Berlin, Germany
Contact: mueller.grit@baua.bund.de

Background

Health-related quality of life (HRQoL) is a multidimensional concept assessing physical and mental functioning and is recognized as an instrument of health surveillance. By today, research on HRQoL and burnout is scarce particularly in population-based samples. The aim of the present study is to investigate the association between burnout and HRQoL in the German working population.

Methods

The Study of Mental Health at Work is a nation-wide cross-sectional representative study of the German working population aged 31 to 60 years. Data was collected in computer-assisted personal interviews by trained interviewers in 2011 and 2012. Burnout was assessed with a drop-off questionnaire applying the scale on emotional exhaustion from the Oldenburg Burnout Inventory (OLBI). HRQoL, measured with a modified version of the Short Form 12 Health Survey, provides information on physical (PCS) and mental functioning (MCS). The sample was limited to persons in full or part time employment at the time of the interview. Linear regression models were estimated to assess the association between burnout and HRQoL adjusted by age and gender.

Results

Preliminary results identified 386 (11%) out of the 3,520 study participants with elevated scores (>3) on the burnout scale. These persons have significantly lower mean values of PCS (44.8) and MCS (39.7) compared to participants with lower scores on the burnout scale (PCS: 50.8; MCS: 51.2). Linear regression shows that an increase in burnout scores by 1 point results in a decrease of −5.8 (95% CI = −6.3 – −5.2) on the PCS and −9.6 (95% CI = −10.1 – −9.1) on the MCS.

Conclusions

Burnout is associated with lower HRQoL and affects mental as well as physical functioning and health in a representative sample of the German working population. Following these preliminary results, burnout should receive more attention in public health initiatives addressing the maintenance of health, especially for work force participants.

Key messages

- HRQoL is reduced in persons affected by burnout syndrome in the German working population
- Burnout is associated with a reduction in mental as well as physical functioning and health

Gender gap in incident sickness absence using a novel outcome measure. The Hordaland Health Study

Inger Haukenes

I Haukenes[1,2], *J C Skogen*[1,3]
[1]Division of Mental Health, Department of Public Mental Health, Norwegian Institute of Public Health, Bergen, Norway
[2]Department of Global Public Health and Primary Care, University of Bergen, Bergen, Norway
[3]Alcohol and Drug Research Western Norway, Stavanger University Hospital, Stavanger, Norway
Contact: inger.haukenes@isf.uib.no

Background

Operationalisations of sickness absence include frequency of spells, length of spells and total duration of spells. These measures capture different aspects of sickness absence, but not its complexity. Hensing and colleagues suggested in 1998 and 2009 a new operationalisation aiming at measuring incidence rate – a measure particularly useful for comparative studies. Since the gender difference in sickness absence has been a consistent finding using other measures, we aimed at examining sickness absence for men versus women using the suggested measure of incidence rate.

Methods

A subsample of 8,669 men and 9,217 women, born 1951 to 1957, from the Hordaland Health Study (HUSK), Norway (1997-99), provided baseline information on gender, socioeconomic position, domestic life and health. Outcome was register-based sickness absence (spells and duration of spells) from baseline to end of 2010. Incidence rate of sickness absence was defined as: '(new spells of sickness absence during follow-up) / (individuals at risk for new spells) x (number of days during follow-up, excluding sickness absence days in new and current sickness absence spells during follow up)'. We used crude and adjusted linear regression models.

Results

Mean number of spells was 1.9 (SD 3.6) for men and 3.4 (SD 6.0) for women, and mean number of days was 205 and 348, respectively. The mean yearly incidence rate for men was 0.19 (SD 0.37) compared with 0.33 (SD 0.65) for women ($p < 0.001$). In the regression analyses the unstandardized coefficient for women versus men was 0.15 (CI95% 0.13-0.16) in the crude model, and 0.12 (CI95% 0.10-0.14) in the fully adjusted model.

Conclusion

Using a novel measure of sickness absence, taking account of frequency, duration and time, we confirmed that women had a higher incidence rate compared with men after adjusting for relevant confounders. Our preliminary findings suggest that incidence rate may be used in studies of sickness absence across countries.

Key messages

- Incidence rate is a novel measure of sickness absence that may be particularly useful for comparative studies

A social ecology of sustainable employability: a qualitative study among Dutch employees

Inge Houkes

B Rooijackers[1], *AE de Rijk*[1], *K Horstman*[1], *M Mulder*[2], *I Houkes*[1]
[1]Maastricht University, Maastricht, the Netherlands
[2]Mulder Arbeid & Gezondheid, Maastricht, the Netherlands
Contact: Inge.Houkes@maastrichtuniversity.nl

Background

In the wake of the economic crisis and an ageing (labour) population, sustainable employability (SE) of employees is top priority for governments and employers, and is more than before considered part of the public domain. However, we lack insight into what SE means for employees and how organizational policies affect SE according to employees. In most SE initiatives, this employee perspective is absent. The current study aims to give voice to employees.

Methods

A qualitative study with semi-structured interviews with 12 male and 11 female employees from four different organizational settings (industry, cleaning, ICT and academia) was performed. We used purposive sampling to ensure sufficient variety regarding age, gender and education. All interviews were recorded (with informed consent), transcribed verbatim, and analyzed thematically.

Results

Employees view SE in terms of having a good work-life balance and a healthy lifestyle, but also as having meaningful work and a career perspective in their organization. They also view SE as a joint employer-employee responsibility and reflected on how organizations operationalize SE. They distinguished three organizational approaches: an encouraging (focusing on human resource management), a caring (focusing on health) and a laissez-faire (focusing on offering autonomy) approach. The perception of how effective these approaches are varies between men and women and age groups, but not between educational levels.

Conclusions

From the perspective of employees diverse factors and processes both at the level of the individual and at the level of the organization play a role in creating SE. Therefore, SE should not be conceived as the responsibility of an individual employee, but should be considered a complex social ecological phenomenon. Organizations striving for SE of their employees should take this complex social ecology into account. Giving voice to their employees can provide fruitful insights in how to do this.

Key messages

- Sustainable employability is the outcome of a social ecological phenomenon
- Three types of organizational approaches to sustainable employability are distinguished: encouraging, caring and laissez-faire

2.M. Regular workshop: Poverty, hopelessness and suicide

Organised by: EUPHA Section on Public Mental Health
Contact: lindert@brandeis.edu

Chair: Jutta Lindert

Low-income countries in Asia and Pacific have the highest burden of suicide in the world. In Europe, Eastern European countries have the highest burden of suicide. Suicides are associated with psychopathologies such as depression and hopelessness. Poverty, scarcity and economic crisis are associated with psychopathologies, yet knowledge is still needed about the the impact of poverty, scarcity and economic crises on hopelessness and suicide. Several moderating or mediating mechanisms (such as duration and historical experiences of scarcity) may play a role in the impact.

In 2008 a global economic crisis affected Europe as well as the rest of the world. The crisis caused problems in the banking sector and downturns in stock markets, bankruptcies, house repossessions and rises in unemployment. Hopelessness and suicide is believed to be at associated by such a crisis, since people with mental disorders (particularly mood disorders) constitute a particularly vulnerable population. Among all adverse effects, the most striking would be an effect on suicide rates. However, research yields heterogeneous results. In many countries there is still limited availability of resources for suicide research and fragmentation of data. Fragmented data on suicide mean that it is often difficult to have a clear understanding of the size of the problem and to identify specific groups 'at risk'. Our goal in this workshop is to contribute to better understand the links between poverty, scarcity, economic crises, hopelessness and sucide trends to contribute to prevention and intervention efforts.

1. The first presentation will present an overview on economic crisis effects on suicide and the moderating effects of policies, legislation and social security networks.
2. The second presentation presents analyses of suicide data in Europe and suggests that economic crises effects vary across countries.
3. The third presentation suggests an increase in suicides among persons of working age coinciding with austerity measures.
4. The fourth presentation presents data on economic hardships and psychopathologies and suggests that hopelessness is the main impact of economic hardship and crises in young males.
5. The fifth presentation provides a best practice example in suicide intervention from the United Kingdom.

Presentations are followed by a discussion between speakers and the audience to initiate further efforts to understand suicidal behavior from a global perspective and prevent suicides and hopelessness locally.

Key messages

- There is marked geographic variability in suicide rates, with the highest rates being found in Eastern Europe
- These correlations maybe complex and some countries show weak correlations of economic indices with suicide rates

The true cost of the economic crisis on psychological well-being and suicide: what does the literature tell us?

Guido Van Hal

G van Hal
University of Antwerp, Antwerp, Belgium
Contact: guido.vanhal@uantwerp.be

Background

The recent economic crisis has led to many negative consequences, not the least having to do with the mental health and well-being of the populations involved. Some researchers say it is still too early to speak about a relationship between the economic crisis and a rise in mental health problems resulting in suicides.

Methods

A systematic literature search was performed to find out what the true cost of the economic crisis on psychological well-being really is.

Results

Literature shows that there is solid evidence for the existence of a relationship between the economic crisis and a rise in mental health problems resulting in suicides. The main reactions of most policy makers to the economic crisis are (severe) austerity measures. These measures seem to have, however, a detrimental effect on the mental health of the population. Just when people have the highest need for mental help, cost-cutting measures in the health sector lead to a (substantial) drop in the supply of services for the prevention, early detection, and cure of mental health problems. Policy makers should support moderating mechanisms such as financial and psychological coping and acculturation and the role of primary health care workers in the early detection of suicidal thoughts, suicide attempts, and suicide in times of economic recession. Several examples show that countries best off regarding the mental health of their populations during the economic crisis are those countries with the strongest social safety net.

Conclusions

Instead of cutting back on health care and social welfare measures, policy makers should in the future invest even more in social protection measures during economic crises.

Impact of unemployment rate and the economic crisis on suicide mortality in Western European countries (2000-2010)

Moussa Laanani

M Laanani, G Rey
Inserm-CépiDc, Le Kremlin-Bicêtre, France
Contact: moussa.laanani@inserm.fr

Background

Since Durkheim's study on suicide in the 19th century, increases in suicides during economic downturns are repeatedly observed. However, the unemployment-suicide ecological association could be biased by the confounding effects of concomitant features of the economic crisis, playing a role of possible confounders. Several studies assessed the ecological unemployment-suicide association, yielding inconsistent results but suggesting a causal association between the 2008 economic crisis and the increase in suicides. Our main objective was to assess the impact of unemployment rate and the economic crisis on suicide rates in Western European countries between 2000 and 2010.

Methods

We used mortality statistics to model the yearly suicide rates using a quasi-Poisson model, controlling for sex, age, country and a linear time trend. For each country, the unemployment-suicide association was assessed. We evaluated whether the unemployment-suicide association found was biased by a confounding context effect ('crisis effect').

Results

A significant 0.3% overall increase in suicide rate for a 10% increase in unemployment rate (95% CI 0.1% to 0.5%) was highlighted. This association was significant in three countries: the Netherlands (0.7%; 95% CI: 0.0% to 1.4%), the UK (1.0%; 95% CI: 0.2% to 1.8%) and France (1.9%; 95% CI: 0.8% to 2.9%). The association was modified inconsistently when adding a 'crisis effect'.

Conclusion

Unemployment and suicide rates are globally statistically associated in the investigated countries. However, its amplitude and sensitivity to the 'crisis effect' vary across countries. Identifying the actual origins of suicide increase during the financial crisis is necessary in order to implement efficient public health policies.

What has happened to suicides during the Greek economic crisis? Findings from an ecological study of suicides and their determinants (2003-2012)

George Rachiotis

G Rachiotis[1], *D Stuckler*[2], *M McKee*[3], *C Hadjichristodoulou*[4]
[1]Department of Hygiene and Epidemiology, Medical Faculty, School of Health Science, University of Thessaly, Larissa, Greece
[2]Department of Sociology, University of Oxford, Oxford, UK
[3]European Centre on Health of Societies in Transition, London School of Hygiene and Tropical Medicine, London, UK
[4]European Observatory on Health Systems and Policies, London, UK
Contact: g.rachiotis@gmail.com

Background

There is a controversy about the impact of economic crisis on suicide rates in Greece. We analyzed recent suicide data to identify who has been most affected and the relationships to economic and labour market indicators.

Methods

Age and sex-specific suicide rates in Greece for the period 2003–2012 were calculated using data provided by the Hellenic Statistical Authority. We performed a join-point analysis to identify discontinuities in suicide trends between 2003–2010, prior to austerity, and in 2011–2012, during the period of austerity. Regression models were used to assess relationships between unemployment, Gross Domestic Product, and suicide rates for the entire period by age and sex.

Results

The mean suicide rate overall rose by 35% between 2010 and 2012, from 3.37 to 4.56 per 100,000 population. The suicide mortality rate for males increased from 5.75 (2003-2010) to 7.43 per 100,000 (2011- 2012; $p<0.01$). Among females the suicide rate also rose, albeit less markedly, from 1.17 to 1.55 ($p=0.03$). When differentiated by age group, suicide mortality increased among both sexes in age groups 20–59 and > 60 years old. We found that each additional percentage point of unemployment was associated with a 0.19 per 100,000 population rise in suicides (95% CI: 0.11 to 0.26) among working age men.

Conclusions

We found a clear increase in suicides among persons of working age coinciding with austerity measures. These findings corroborate concerns that increased suicide risk in Greece is a health hazard associated with austerity measures.

Economic hardship and hoplessness

Jutta Lindert

J Lindert[1,2], *I Levav*[3]
[1]University of Emden, Emden, Germany
[2]Brandeis University, Waltham, USA
[3]Queen's University Department of Psychiatry, Ontario, Canada
Contact: Lindert@brandeis.edu

Background

Depression, anxiety, hopelessness is common among people who live in the Western world, yet little is known about its prevalence in individuals in slum settlements in Latin America. We investigated in the association of scarcity (lack of access to water and food) to depression, anxiety and hopelessness in individuals aged 18–64 years living in slum areas in the Dominican Republic. This is the first study ever which investigates mental health of individuals living in slum areas in the Dominican Republic (DT).

Methods

A baseline assessment of community based longitudinal survey of adults aged above 18–64 years was carried out in an urban slum and in villages in the DR in 2012. Random sampling by random route was employed to select households, the sampling unit in this study. Depression, anxiety, was measured by using CIDI-based depression and anxiety criteria according to the DSM-IV criteria and overlapping dimensions of depression and anxiety (e.g. hopelessness) were assessed. Association between living conditions and depression and anxiety was investigated with logistic regression analysis.

Results

A total of 200 individuals were interviewed ($n=119$ women, 59.8%). The response rate was excellent (98.5%). The prevalence of depression was 11.3% in women and 16.0% in men. The dimension 'hopelessness' was the most prevalent mental condition (46.2% among women; 60.5% among men.) Hopelessness was associated with being male and younger. Furthermore, hopelessness was associated with food insecurity ($OR=2.5$) and with lack of access to water ($OR=3.0$).

Conclusion

Hopelessness is common in people living in slums, with young males under 30 at greater risk than any other group. This study is the baseline for further research on mental health of people living in slums in the Dominican Republic.

Informing the UK National Suicide Prevention Strategy

Sally Mc Manus

S McManus, V Gill, C Bennett
National Centre for Social Research (NatCen), London,UK
Contact: Sally.mcManus@natcen.ac.uk

Background

Governments around the world develop strategies to prevent suicide in their populations. This research was commissioned to inform and target the English National Suicide Prevention Strategy. In the 1980s, older men (70+) were the most likely demographic group in the UK to take their own life. With improvements in recognition and treatment of depression in older people, the suicide rate among older men dropped dramatically. Now the rate is highest among men in midlife (35-59 years). And since recession, suicide among midlife men has become more common.

Methods

Twelve national, general population probability sample surveys conducted in the UK between 1993 and 2013. Logistic regression analyses used to identify risk factors for suicidal thought, attempts, and self-harm drawing on data from more than 230,000 participants.

Results

Risk factors [provisionally] identified group into: demographics (male; midlife; lesbian, gay or bisexual), mental health (anxiety, depression, worry, worsening mental health, low wellbeing), physical health, financial insecurity (debt, struggling to manage financially, renting, insecure housing, job worries, unemployment); relationships (living alone, no children in household, bullying, lacking a supportive or close relationship), stressful life events (divorce; financial crisis; police contact; being attacked; multiple events). We found many of these risk factors were both specifically relevant to and compounded for men in midlife.

Conclusions

Given the current economic context, national suicide prevention strategies should address the specific situation of men in midlife, both in terms of managing financial insecurity and in supporting the development of emotional resilience and social resources. Main messages: Men in midlife are now the key group at risk of suicide in the UK; public health responses must prioritise economic insecurity and emotional resilience in this group.

2.N. Oral presentations: Health throughout childhood

Implementation of the '10 Steps for Successful Breastfeeding' across maternity clinics in Cyprus

Nicos Middleton

N Middleton, M Economou, V Hadjiona, C Kouta, E Lambrinou, I Paphiti-Demetriou, E Hadjigeorgiou, F Tryfonos, E Filippou, O Kolokotroni
Department of Nursing, School of Health Sciences, Cyprus University of Technology Limassol, Cyprus
Cyprus Breastfeeding Association – 'Gift for Life', Nicosia, Cyprus
Contact: nicos.middleton@cut.ac.cy

Background

Even though the effectiveness of the Baby-Friendly Hospital Initiative's (BFHI) '10 steps' for successful breastfeeding has been widely documented, more than two decades later there is still concern that implementation is fragmented. To date, no hospital in Cyprus has the BFHI title and there is only anecdotal evidence with regards to the implementation of the 10 steps.

Methods

The degree of implementation of the '10 steps' as well as the International Code of Marketing of Breast-milk Substitutes (ICMBS) across all public maternity wards (N = 5) and 29 (of 35) private clinics in Cyprus was assessed based on the responses of a consecutive sample of 568 mothers (response 70.8%) during the study period using the 24 multiple choice WHO/UNICEF BFHI self-assessment questionnaire

Results

There appears to be relatively good adherence to the ICMBS across Cypriot maternity units with 80.9% and 74.4% in public and private clinics respectively reporting not been given leaflets or supplies. A higher degree of implementation was observed with regards to assistance in breastfeeding skills development (step 5) along with encouragement of breastfeeding on demand (step 8). However, only 26.9% of mothers experienced skin-to-skin contact (step 4) while rooming-in (step 7) was more widely practiced in the public sector (60%) compared to the private sector (20%). The lowest implementation was observed with regards to step 9, which refers to the use of pacifiers and bottles.

Conclusion

It is not surprising that initiation and continuation of exclusive breastfeeding are particularly low since based on mothers' assessment there appears to be a significant gap in the implementation of the 10 Steps for Successful Breastfeeding practices across Cypriot maternity clinics. This highlights the need for a national breastfeeding strategy including health professional educational interventions as well as nationwide awareness and civic engagement campaigns.

Key messages

- The implementation of the '10 steps' good practices for successful breastfeeding is fragmented in Cyprus
- There is need for breastfeeding promotion, protection and support initiatives to tackle low breastfeeding rates

Sibling death in childhood predicts mortality in young adults-a Swedish national cohort study

Mikael Rostila

M Rostila[1], L Berg[2], J Saarela[3,4], A. Hjern[2,5]
[1]Department of Sociology, Stockholm University, Stockholm, Sweden
[2]Centre for Health Equity Studies, Stockholm University/Karolinska Institutet, Stockholm, Sweden
[3]Åbo Akademi University, Åbo, Finland
[4]University of Helsinki, Helsinki, Finland
[5]Clinical Epidemiology, Department of Medicine, Karolinska Institutet, Stockholm, Sweden
Contact: mikael.rostila@sociology.su.se

Background

Previous studies have found that the loss of a family member increases mortality among bereaved family members. Although, some previous evidence have found associations between loss of a sibling in adulthood and subsequent mortality few studies have studied whether sibling deaths in childhood is associated with all-cause and cause-specific mortality in young adulthood.

Methods

A national cohort born during 1973–1982 (N = 871 402) was followed prospectively in the Swedish Cause of Death Register from age 18 to 30–35. Multivariate Cox analyses of proportional hazards with adjustment for socio-demographic confounders were used to test the association between sibling loss and all-cause and cause-specific mortality in young adulthood. Sibling deaths were divided into deaths caused by external causes and natural causes and we studied mortality from CVD, cancer, other diseases, suicides and accidents among bereaved siblings.

Results

In men, the mortality risk for bereaved persons versus non bereaved persons during childhood/adolescence was 1.48 (95% CI: 1.17, 1.86), and in women it was 1.45 (95% CI: 1.01, 2.09) after adjustment for socio-demographic confounders. Losing a non-infant sibling (>1 years) was most detrimental for both men (HR: 1.65, 95% CI: 1.23, 2.23) and women (HR: 1.54, 95% CI: 0.95, 2.50) while bereaved men (HR: 1.86, 95% CI: 1.28, 2.72) and women (HR: 1.75, 95% CI: 0.97, 3.18) were most vulnerable when exposed to loss of a sibling in adolescence (12-18 years). Further, preliminary analyses showed that external causes of death were most detrimental for mortality among bereaved siblings.

Conclusions

Sibling death during childhood predicts mortality in young adulthood, particularly when persons are exposed in adolescence. Men and women are about equally vulnerable to sibling deaths at different stages of childhood.

Key messages

- Sibling death during childhood predicts mortality in young adulthood
- More research on the health consequences and underlying mechanisms linking sibling deaths and mortality in remaining siblings is suggested

Mental health in childhood as risk indicator of labour market participation in young adulthood

Thomas Lund

T Lund[1,2], CD Hansen[3], JH Andersen[2], M Labriola[1]
[1]CFK, Central Denmark Region, Århus, Denmark
[2]Danish Ramazzini Centre, Department of Occupational Medicine, Regional Hospital Herning, Herning, Denmark
[3]Department of Sociology & Social Work, Aalborg University, Denmark
Contact: thlund@rm.dk

Objective

The aim of this study was to investigate if mental health status in childhood determined future labour market participation, and to identify if effects varied across gender and social strata.

Methods

Of a cohort of 3,681 born in 1989 in the county of Ringkjoebing, Denmark, 3,058 (83%) completed a questionnaire in 2004. They were followed in a register on social benefits for 12 months in 2010–2011. Sequence analysis was used to describe differences in labour market trajectories according to mental health status. Logistic regression was used to investigate associations between mental health in childhood measured with The Centre for Epidemiological Studies Depression Scale for Children (CES-DC) and future labour market participation, taking into account effects of socioeconomic position, school performance, educational plans and vocational expectations.

Results

A total of 17.1% (19.9% males, 14.4% females) received social benefits for at least 4 weeks during follow-up. Girls scored significantly lower on mental health than did boys. Labour market participation in early adulthood decreased with poor mental health in childhood, but only for boys: Boys with a baseline CES-DC score in the lowest quartile had a 70 % excess risk of low labour market participation after 7 years of follow-up. The association persisted when taking into account socioeconomic position, but became borderline significant when adjusting for school performance, educational plans and vocational expectations. The negative effect was even across social strata.

Conclusions

Despite girls scoring significantly lower on mental health than do boys, the effects on future labour market participation was only present among boys. The effect of poor mental health on future labour market participation did not vary across social strata.

Key messages

- Despite girls scoring significantly lower on mental health than do boys, the effects on future labour market participation was only present among boys
- The effect of poor mental health on future labour market participation did not vary across social strata

Building resilience among adolescents: First Results of a school-based mindfulness intervention

Salla-Maarit Volanen

SM Volanen[1], *N Hankonen*[2,3], *K Knittle*[2], *M Beattie*[2], *G Salo*[2], *S Suominen*[4]
1.Folkhälsan Research Centre, and University of Helsinki (Dept of Public Health), Finland
2.University of Helsinki, Department of Social Research, Finland
3.University of Tampere, Finland
4.University of Skövde, Sweden; University of Turku and Folkhälsan Research Centre, Finland
Contact: salla-maarit.volanen@helsinki.fi

Background

In Finland, 15–25% of adolescents suffer from mental health problems, and there is increasing concern over stress-related mental health problems. There is initial evidence that mindfulness (MF) interventions might hold some promise. For MF interventions to have the intended effects, it is critical that participants continue practice of MF after the program. To our knowledge, no previous research has examined the extent to which participants take up MF practice, and which motivational aspects of MF interventions predict continued practice of MF (at home) after the conclusion of intervention programs. We aimed to examine 1) what proportion of students report continued practice of MF at home post-intervention, 2) whether perceived norms, self-efficacy, outcome expectancies and intention predict practice at home, and 3) which are the most usual subjectively perceived benefits among those who continue independent practice.

Methods

This study uses data from an ongoing cluster-randomized trial to test the effectiveness of MF program on student well-being. In the first wave of recruitment, 500 students aged 12–15 years (out of an eventual 2400) were randomly assigned to receive a MF intervention based on the .b program or a control stress management intervention. The MF intervention program consisted of nine weekly MF lessons. We analyzed questionnaires of the intervention arm students ($n = 310$) at 6 months, i.e., post-intervention.

Results

49% of students reported having practiced MF at home after six months. Overall, descriptive norms (i.e. beliefs about what their peers were doing) were the greatest predictor ($B = .121$, $P=.006$) of MF practice. Students who continued practice of MF at home six months after the intervention reported the following benefits: better concentration in class (79%); better concentration on hobbies (76%); managing stress better (69%); coping better with difficult emotions (77%); sleeping better (79%); getting better grades in exams (75%); getting along better with friends (85%); and getting along better with family members (84%).

Conclusions

The results of this substudy can be used in enhancing uptake of MF practice. Future research should aim at examining maintenance of independent MF practice post-intervention with longer follow-ups, and identify best strategies to help students maintain independent practice.

Key messages

- MF practicing promoted self-reported outcomes attached to improved resilience and emotional balance. School-based MF programs may be a low cost means to promote well-being
- Health promotion programs should pay attention to the power of peer behaviour, and take a variety of motivational aspects into account in program design

Associations between shaming, priding and self-rated health in adolescent boys

Eva Randell

E Randell[1], *J Joffer*[2], *R Flacking*[3], *B Starrin*[4], *L Jerdén*[5]
[1]Department of Public Health and Clinical Medicine, Epidemiology and Global Health, Umeå University, Umeå, Sweden and School of Education, Health and Social Studies, Dalarna University, Falun, Sweden
[2]Department of Public Health and Clinical Medicine, Epidemiology and Global Health, Umeå University, Umeå, Sweden
[3]School of Education, Health and Social Studies, Dalarna University, Falun, Sweden
[4]Department of Social Studies, Faculty of Social and Life Sciences, Karlstad University, Karlstad, Sweden
[5]Department of Public Health and Clinical Medicine, Epidemiology and Global Health, Umeå University, Umeå, Sweden and Center for Clinical Research Dalarna, Falun, Sweden
Contact: era@du.se

Background

Pride and shame are important emotions for identity development and health, but sparsely examined in a youth context. Thus, the aim was to examine associations between priding, shaming and self-rated health (SRH) among adolescent boys.

Method

A cross-sectional study conducted in Sweden with 318 boys aged 17–18 years answering a postal questionnaire, with questions on self-rated health, shaming and priding, as well as other health related questions. Both independent and combined impact of shaming and priding on SRH were investigated. By summarising priding (two questions: someone has made you proud, someone has expressed a positive opinion about you) and shaming (four questions: being insulted, ridiculed, ignored, and received derogatory comments) a pride-shame-model was tested. Logistic regression analysis was used to investigate associations between priding, shaming and SRH.

Results

In a preliminary analysis, univariate logistic regression showed that both priding and shaming were significantly associated with SRH. Those with higher priding were more likely to have very good SRH (OR 2,34, CI 1,44-3,81) and those with higher shaming were less likely (OR 0,50, CI 0,32-0,79).

A logistic regression analysis of the pride-shame-model showed that the chance of having 'very good' SRH was highest among boys with low shame and high pride. The likelihood of having lower SRH were higher among those with low shame-low pride (OR 2.22, CI 1.15-4.28) and high shame-high pride (OR 2.00, CI 1.04-3.85), being highest among boys with high shame-low pride (OR 7.16, CI 3.10-16.10). In a multivariable logistic regression the shame-pride model remained significantly associated to SRH after controlling for ethnicity, family mood, attitude to school and having enough friends.

Conclusions

High priding and low shaming were associated to very good SRH. Priding experiences seemed to be protective for self-rated health among boys exposed to shaming.

Key messages

- Shaming and priding experiences were significantly associated to self-rated health among adolescent boys
- Priding experiences seemed to be protective for self-rated health among boys exposed to shaming experiences and this knowledge could be useful in the adolescent health promotion

Assessing children's eating behavior using a 7-day food log

Natalie Rangelov

N. Rangelov[1], *P. Marque-Vidal*[2], *L.S. Suggs*[1]
[1]BeChange Research Group, Institute for Public Communication, University of Lugano, Switzerland
[2]Department of Internal Medicine, CHUV, University of Lausanne, Switzerland
Contact: natalie.rangelov@usi.ch

Background

Measuring children's eating behavior is riddled with challenges. Recall, portion sizes, and food frequency questionnaire length are often reported as challenges to measuring food intake of children. While direct observation and clinical measures can serve as reliable indicators of food consumption, they are not always feasible for public health practice and research. Asking children to report their food consumption can be seen as unreliable and parents may tend to provide more socially desirable responses when reporting their child's consumption. The purpose of this paper is to assess the level of agreement between children and their parents when reporting a child's food consumption.

Methods

A cross-sectional study of children and parents living in Ticino Switzerland was conducted in 2014 with 300 children in elementary and middle school (roughly aged 6–12) and one of their parents. Children and parents separately completed a log of the child's food consumption for 7 consecutive days.. Foods consumed were reported and coded, and no portion size was asked for.

Results

To assess agreement between parental reporting and child reporting of food intake, we calculated the mean for 21 foods consumed and ran Spearman's correlations. Results show a high level of agreement between child and parent reporting with all foods consumed being statistically significant. The strongest correlations were found in pastries (.84), farinaceous (.83), fruit (.80) dairy products (.77), sweets (.74), eggs (.74), junk food (.72), and sweet drinks (.72). The weakest correlations were found for whole grains (.58), fatty meat (.57) and sauces (.55). Kappa values and Lin's measure of agreement were calculated as well.

Conclusion

When assessing children's eating behavior, it may be just as reliable to ask them to complete a diet log each day, rather than relying on parents to provide such information for them.

Key message

- When assessing food intake, children are just as good as parents in reporting what they ate

2.O. Oral presentations: Community based health promotion

Participation in health promotion: an overview and illustration of rationales

Janneke Harting

N Harting[1], *B Fienieg*[2], *A Ungureanu*[3], *K Stronks*[1]
[1]Department of Public Health, Academic Medical Centre University of Amsterdam, Amsterdam, The Netherlands
[2]Department of Public Health & Centre for Evidence-based Education, Academic Medical Centre University of Amsterdam, Amsterdam, The Netherlands
[3]Centre for Health Policy and Public Health, College of Political, Administrative and Communication Sciences, Babeş-Bolyai University & Department of Public Health and Management, Iuliu Haţieganu University of Medicine and Pharmacy, Cluj-Napoca, Romania
Contact: j.harting@amc.uva.nl

Background

In health promotion, participation is a highly valued principle. In practice, however, the fundamental reasons underlying participation mostly remain implicit. This often results in ambiguous stakeholder views on approaches and purposes, which may hamper efforts to achieve and evaluate participation. This paper provides an illustrated overview of participation rationales, with the aim to improve participation practice and research in health promotion.

Methods

We conducted a critical review on typologies of rationales for participation. From the typologies identified, we re-categorized the types of rationales according to their content. From our own health promotion and evaluation practices, we purposively selected Romanian and Dutch participation examples to illustrate the manifestation of the rationales in health promotion.

Results

Four distinct types of rationales were identified. Two types originate from morel principles. The normative rationale highlights participation as a basic right. The transformative rationale interprets participation as empowering. Two other types have a consequentialist origin. The substantive rationale explains participation as a means to ensure influence. The instrumental rationale regards participation as a means to legitimate policies and to improve program implementation, efficiency and effectiveness. Examples illustrate how different rationales are likely to co-exist and may evolve over time, and how making rationales explicit may help to overcome participation inertia.

Conclusion

The typology of rationales may serve as theoretical underpinning for the design and evaluation of participation in health promotion. Explicit rationales may be helpful in selecting matching approaches and defining realistic purposes. Combined into a flexible program theory, these insights are expected to improve the quality of accompanying evaluation studies.

Key messages

- Four different and sometimes conflicting types of rationales may underlie participation in health promotion: normative, transformative, substantive and instrumental.

- The different rationales for participation in health promotion should preferably be made explicit, as each rationale has its own implications for practice and research

The effectiveness of a community programme with nurse-led intervention in Singapore

Serena Low

S Low[1], RK Tham[2], B Irwan[2], TKM Wong[3]
[1]Clinical Services, Khoo Teck Puat Hospital, Singapore
[2]Population Health, Khoo Teck Puat Hospital, Singapore
[3]Family and Community Medicine, Khoo Teck Puat Hospital, Singapore
Contact: low.serena.km@alexandrahealth.com.sg

Background

We implemented a community programme that incorporated screening and outreach by nurses to measure the health status of the North population and help them better manage their chronic diseases through targeted intervention. The aim of this study is to evaluate effectiveness of the programme on cardiovascular risk profile.

Methods

The study evaluated the pre- and post-biometric changes in 633 residents aged 40 years and above who had participated in health screening. For those with newly discovered potential chronic disease(s) and/or poorly controlled existing chronic disease(s), our community nurses followed up with them through home visits or phone calls, and worked directly with the resident or caregiver to help improve their condition at home. They also encouraged these residents to see or review their conditions with their primary care doctor and attend lifestyle modification courses. There are 218 residents in this category ('Intervention Group').

Results

There were significant reductions ($p < 0.001$) in body mass index (BMI) (−1.2%), weight (−1.1%), systolic blood pressure (SBP) (−4.7%), diastolic blood pressure (DBP) (−5.6%), total cholesterol (−3.4%) and LDL-cholesterol (−4.5%) from the Intervention Group with mean duration of 10 months after first screening. Analysis of the stratified data showed significant shift ($p < 0.05$) of the proportions towards healthier risk factor categories for exercise, BMI, SBP, DBP and total cholesterol. Multiple linear regression analysis showed that the intervention group experienced significant average decreases of BMI, weight and total cholesterol, having adjusted for age, gender, baseline parameter and health category. Less marked improvements were seen in the non-intervention group.

Conclusions

Community programme incorporating nurse-led intervention was effective and sustainable in reducing cardiovascular risk factors. The support by community nurses provided an individualised approach that complemented general population outreach on health promotion.

Key messages

- Community programme with nurse-led intervention was effective and sustainable in improving health
- The individualised approach through nurses complemented population outreach on health promotion

Promoting healthy lifestyle among Palestinian students mediated by teachers training and engagement

Maha Nubani Huseini

M Nubani, M Dunchin
Braun School of Public Health, Hebrew University, Jerusalem, Israel
Contact: m_nubani@hotmail.com

Objectives

To examine whether the impact of an intervention program on students' healthy eating (HE) and physical activity (PA) was mediated by teachers' engagement in health promotion.

Background

A previously reported randomized controlled program trial was conducted in 14 schools, which demonstrated statistically significant improvements in students eating breakfast daily, consuming recommended fruits and vegetables (F&V) and PA.

Methods

The trial was conducted in 3 phases: pre-intervention needs assessment baseline survey, intervention among 7 randomly selected schools and post-intervention evaluation survey. Baseline and post-intervention surveys were self administered questionnaires for teachers, mothers and schoolchildren. Teachers underwent training in HE and PA. SPSS PROCESS for Hayes (Model 8) was used to determine moderation and mediation effects.

Result

The difference in difference (DID), was calculated for the three main outcomes of the study: eating breakfast daily with a DID of 17.5% ($p < 0.001$); consuming the recommended servings of fruit and vegetables (F&V), 29.4% ($p < 0.001$); and being physically active for at least 5 days/week, 45.2% ($p < 0.001$). Schoolchildren's eating breakfast daily was mediated by their teachers training in HE (≥ 0.424, $p = 0.002$), teachers' engagement (≥ 0.167, $p = 0.036$), and mothers preparing breakfast (≥ 1.309, $p < 0.001$). Schoolchildren's consumption of daily amount of F&V was mediated by their teachers' engagement (≥ 0.427, $p = 0.001$) and knowing the recommended servings of F&V (≥ 0.485, $p < 0.001$). Schoolchildren's PA was mediated by their teachers' training in PA (≥ 0.420, $p = 0.020$) and teachers' engagement (≥ 0.655, $p < 0.001$).

Conclusion

Health behavior change in the school setting, improvements in eating breakfast, consuming the recommended F&V and PA were mediated by teacher training and engagement. Careful attention to teacher training and engagement is warranted in the design of health promotion interventions in the school setting.

Key messages

- An intensive intervention, planned and implemented by the teachers succeeded in changing health behaviors in the areas of nutrition and physical activity of female students
- Training teachers prior to an intervention program, and their engagement in the implementation, is a major component which mediates the success of health promotion programs targeting schoolchildren

Insomnia and mortality: a register-linked study among Finnish, Norwegian and Lithuanian women and men

Ossi Rahkonen

T Lallukka[1,2], A Podlipskytė[3], B Sivertsen[4,5,6], J Andruskienė[3], G Varoneckas[3], E Lahelma[1], R Ursin[7,8], GS Tell[9], O Rahkonen[1]
1Department of Public Health, University of Helsinki, Helsinki, Finland
[2]Finnish Institute of Occupational Health, Helsinki, Finland
[3]Institute of Behavioural Medicine, Lithuanian University of Health Sciences, Kaunas, Lithuania
4Division of Mental Health, Norwegian Institute of Public Health, Bergen, Norway
[5]Uni Health, Uni Research, Bergen, Norway
[6]Department of Psychiatry, Helse Fonna HF, Haugesund, Norway
[7]Norwegian Competence Center for Sleep Disorders, Haukeland University Hospital, Bergen, Norway
8Department of Biomedicine, University of Bergen, Bergen, Norway
9Department of Global Public Health and Primary Care, University of Bergen, Norway
Contact: ossi.rahkonen@helsinki.fi

Background

Evidence on the association between insomnia and mortality is limited and inconsistent. We examined the association between specific insomnia symptoms and all-cause mortality in cohorts from three countries.

Methods

The Finnish cohort comprised 6605 employees of the City of Helsinki, aged 40–60 years at baseline in 2000–2002. The

Norwegian cohort included 6236 participants from Western Norway, aged 40–45 years at baseline in 1997–1999. The Lithuanian cohort comprised 1602 citizens of Palanga, aged 35–74 years at baseline in 2003. Mortality data were linked to each cohort from National Cause of Death Registries. Follow-up time was 10–15 years. In all cohorts, insomnia symptoms comprised difficulties initiating sleep, nocturnal awakenings, and waking up too early. Covariates were age, marital status, education, alcohol consumption, physical inactivity, obesity and self-rated health. Cox regression analysis was used.

Results

Frequent difficulties initiating sleep were associated with all-cause mortality among men after full adjustments in the Finnish (HR 2.74; 95% CI 1.21-6.23) and in the Norwegian (HR 3.95; 95% CI 1.64-9.49) cohorts. Among women and in the Lithuanian cohort, insomnia symptoms were not statistically significantly associated with all-cause mortality after adjustments.

Conclusions

Difficulties initiating sleep were associated with mortality among Finnish and Norwegian men. Heterogeneity in the association between insomnia and mortality highlights that further research needs to distinguish between men and women, between specific symptoms, and national contexts.

Key messages

- Difficulties initiating sleep were associated with mortality
- There was heterogeneity in the association between insomnia and mortality between genders and national contexts

A pilot study for the feasibility of short message services reminder on post abortion contraceptive utilization in Shanghai, China——a randomized controlled trial

Background: Studies have shown that a short message services (SMS) reminders was an effective way to enhance the attendance in the medical settings for the health care program such as breastfeeding, childhood immunization, smoking cessation and so on, but no study have been conducted about the short message intervention on the effect of attendance for the post-abortion care. This study aimed to explore the feasibility of SMS reminder on post-abortion contraceptive utilization for abortion women.

Methods

A randomized controlled trial was conducted in one maternal and child health institute in Shanghai. Women were recruited when they came to hospitals for seeking induced abortion services. After got their consent, they were allocated randomly into intervention or control group. In the intervention group, a total of 15 SMS massages were sent at regular intervals. In the control group, only routine healthcare services were provided as usual.

Results

203 participants were recruited, 102 in the intervention group and 101 in the control group. The baseline survey, 1st month and 3rd month follow-up survey have been finished (the data of month 6 follow-up would be collected at the end of June). At 1st month, the follow-up rate in the intervention group was 94.1% and control group was 91.1% ($p = 0.645$), whereas month 3 the follow-up rate was 89.2%, 87.1% respectively ($p = 0.646$). Perception of benefit received via SMS was becoming aware of body changes (97.5%), help to choose appropriate contraceptive methods (89.1%), whereas women reported be confident to avoid repeated unwanted pregnancy by reminder was 80.5%. At month 3 follow-up, the reporting rate of more prone to carefully observe body changes and be backache in the intervention group were statistically higher, but no significant difference were found between the groups for contraceptive utilization ($p = 0.734$, 95% CI = 0.28-5.99).

Conclusions

Women who had received SMS showed better attendance and tended to increase awareness of behavior surveillance.

Key messages

- SMS can increase women's awareness of contraceptive adootion by repeatedly information stimulation
- SMS is an ecxellent way to disengage providers from heavy work load because in China providers' shortage is an obvious problem

The feasibility of short message reminder on post abortion contraceptive utilization in China – a pilot study

Shasha Wang

S Wang[1], J Liang[1], H Jiang[1], X Qian[1], WH Zhang[2]
1Fudan University, Shanghai, China
[2]ICRH (International centre for reproductive Health), Ghent University, Belgium
13211020028@fudan.edu.cn
Contact: 13211020028@fudan.edu.cn

2.P. Round table: Public Health Workforce Development in Europe – a 4-Country Debate

Organised by: The Association of Schools of Publi\c Health in the European Region (ASPHER)
Contact: robert.otok@aspher.org

Chairs: Vesna Bjegovic-Milanovic, Fred Paccaud

During 2014, ASPHER ran a series of in-country consultations as part of its operating grant agenda (ASPHER FY2014 – 2013 33 03) exploring the complexity and variety of individual countries contexts in respect to public health workforce development. Four countries were selected: France, Poland, Portugal, and the United Kingdom. This workshop presents the main findings and offers a platform for further debating the key messages.

Two meetings were organized in each of the 4 countries. The meetings included mainly representatives of the academic centres, but also representatives of national institutes of public health, national associations of public health, structures governing the profession, structures governing the training, regional/national authorities (political; administration; registry) representatives.

The following main aspects were addressed:

- The variation of competences (knowledge and skills) profiles as well as Essential Public Health Operations (EPHOs) profiles offered by schools and programmes of public health education.
- Methods applied for the assessment of public health workforce needs; principles and practice of public health workforce planning, including needs assessment, and workforce development and assessment of educational and training needs and capacity; Public health job opportunities.
- The relevance of an IT born tool, based on the three-dimensional chain of population health challenges, EPHOs and competences, for concrete planning of public health services and systems and public health workforce in

countries and regions as well as individual public health career planning.

The workshop especially targets leaders of and teachers at public health educational and training programmes, and planners and decision makers in public health and health systems. The principles, method and practices applied are general and implementable not only locally and across countries in Europe but also globally.
The procedure will be:

5 minutes: introduction by Vesna Bjegovic-Mikanovic (ASPHER; Serbia)
20 minutes: background presentations co-authored by Anders Foldspang (ASPHER; Denmark) and Robert Otok (ASPHER; Belgium)
5 minutes each: position statements by 4 countries representatives – John Ashton (President – UK Faculty of Public Health; United Kingdom), Henrique Barros (Director – Institute of Public Health, Porto; Portugal), Laurent Chambaud (Director – EHESP School of Public Health, Rennes; France), Miroslaw Wysocki (Director – National Institute of Public Health, Warsaw; Poland).
30 minutes: debate moderated by Fred Paccaud (ASPHER; Switzerland). Securing contact with the audience: Anders Foldspang (ASPHER; Denmark) and Robert Otok (ASPHER; Belgium)
2 minute each: summary of key messages by 4 countries representatives (listed above)
5 minutes: Wrap up by co-chairs and moderators

Key messages

- No country presents systems to assess and meet public health workforce or training needs
- Schools of public health would gain from network collaboration

Public Health Workorce Development in Europe – 4 countries characteristics

Anders Foldspang

A Foldspang, R Otok
The Association of Schools of Public Health in the European Region (ASPHER), Brussels, Belgium
Contact: anders.foldspang@gmail.com

Based on the discussions during the visits to the four countries, a short summary of important characteristics would indicate that:

- The United Kingdom has got the most comprehensive and coherent public health system and a well-suited framework for the development and maintenance of a competent public health workforce, with participation from public health professionals with other than medical training, and well organised in comprehensive professional associations.
- The Portuguese system has got relatively strong components of medical points of view, so that, in the activities ruled by the Ministry of Health, public health is almost exclusively a medical specialty, namely concerning health authority duties. Nurses and to some extent other professionals can also follow a public health specialist training. Planning a bachelor programme in public health is currently under consideration.
- France has got a large number of programmes in health sciences including programmes in public health, provided by universities and other academic centres. Three centres have got a special status in providing public health training (Rennes, Bordeaux and Nancy). The French system may be characterised as (1) relatively systems management oriented but also (2) rather medically and healthcare oriented.
- In Poland numerous academic centres provide public health programmes, public and private, with all Bologna levels represented. The large variety may lead to confusion concerning programme quality, e.g., even small private schools of cosmetology claim to provide MPH programmes. Polish public health specialization programmes are often used to upgrade formal competences but without relevant careers to follow.

New public health legislation is under way in Scotland and Poland, which may facilitate also positive educational developments. There was in general shown interest, but also some concern, in shaping an authorised public health profession based on educational criteria.

Competences and EPHOs profiles offered by Schools of Public Health in Europe – 4 countries perspective

Robert Otok

A Foldspang, R Otok
The Association of Schools of Public Health in the European Region (ASPHER), Brussels, Belgium
Contact: robert.otok@aspher.org

There was found substantial variation between self-reported competences offered by schools of public health in the four countries. Summarising across countries, the highest competency scores for public health methods, for population health and its social and economic determinants, and for ethics were reported by the UK schools. The highest scores for population health and its material environmental determinants and for health promotion were reported by the Polish schools, whereas the highest scores for health policy, economics, organisational theory and management were reported by the French schools. Concerning EPHOs, the highest scores for surveillance (EPHO 1), monitoring (EPHO 2), disease prevention (EPHO 5) and governance (EPHO 6) were reported by the UK schools. The highest scores for health protection (EPHO 3), disease prevention (EPHO 5), organization and financing (EPHO 8) and communication (EPHO 9) were reported by the Polish schools, with the Portuguese schools reporting equally high scores for disease prevention (EPHO 5).
The patterns of competences (knowledge and skills) and EPHO skills indicate clear potentials for collaboration in networks and consortia spanning across schools, within as well as between countries, to sustain the comprehensiveness of high quality public health curricula and paving the way for the possibility of developing centres of excellence in public health education, training and continuing professional development.

Fri 16 October 12:35-13:35

2.X. Lunch symposium: Health Policies and Practices of Health Promoting School Program in Asian Countries

Organised by: Health Promotion Administration, Ministry of Health and Welfare, Taiwan

Chair: Fu-Li Chen

Background of the problem

WHO identified six essential structures and guidelines for Health Promoting School (HPS) in 1996. The schools for Health in Europe Network (SHE) have focused on making school health promotion an integral part of the policy development. Asian countries promoted the health promoting school program and developed the accreditation system as well. Developing health policies and innovative practices is important to guide schools to fulfill the ideals of health promotion in schools. There have been many research articles indicating that HPS approach had a positive effect on student health and school environment. However, one of the most significant barriers to evaluate the health promoting schools is the absence of reliable, valid measurement instruments. Development of HPS accreditation approach framework is needed. In addition, principals will also have handover issues, as how to continue HPS promotion of a former principal is an important task. The symposium will share the experiences of how Asian countries have successfully carried out the HPS approach and the results.

Methods and Process

Among these presentations in this session, presenters will show how to successfully apply different promoting health strategies in HPS intervention programs, including action oriented leadership, HPS accreditation approach etc.

Lessons

Participants can give and get from these presentations and how they use the information they received will also be discussed.

Presentation List

National Health Promoting School Movement in Taiwan Synergistic Partnership between Education and Health Departments
Ms. Chen-Su, Lin, Researcher, Health Promotion Administration, Taiwan
Health policies and practices among secondary schools in Taiwan and Thailand
Noy S. Kay
The Role of School Principal in Health Promoting School Effectiveness in Taiwan
Shy-Yang Chio.
The effect of policy developing and action oriented leadership of health promoting school
Chien-Li Cheng, School Principal
Panel discussion

PARALLEL SESSION 3

Friday 16 October 2015 8.30–10.00

3.A. Round table: Around the world in one workshop

Organised by: EUPHA
Contact: d.zeegers@nivel.nl

Chair: Natasha Azzopardi Muscat

Regions, countries and continents differ in their living environments, social structures, health determinants as well as health systems and regulations. As a consequence, different diseases develop across regions and priorities for public health actions vary. To improve global health it is important to not only tackle the health challenges of developed but also of developing countries. Diseases know no borders, which is why global health concerns and affects everyone. Only by putting diseases into a global context, the extent of the global disease burden can be grasped. No one should die of a disease in one country which is considered eradicated in another. No one should suffer from malnutrition, whilst in other countries obesity is a public health problem. Countries around the world have to communicate, collaborate and find a solution to tackle health challenges together.

Jules Verne wrote about travelling the world in 80 days, we aim to provide an insight into health priorities around the world in 90 minutes. We will address how global health priorities can be set, what countries or regions can learn from each other and how they can work together to tackle health problems. Five speakers from different regions of the world will present the top five public health priorities of their region and explain what is being done to tackle them. In a panel discussion, the need for a global action plan will be addressed. These five experts are:

Mengistu Asnake Kibret, Ethiopia, will reflect on Africa
Kasturi Sen, India, on Asia
Scott L. Greer, USA, on America
Walter Ricciardi, Italy, on Europe
Michael Moore (invited) on Australia

3.B. Regular workshop: PARENT Joint Action: tools and actions to promote EU-wide utilization of patient registries

Organised by: PARENT Joint Action
Contact: persephone.doupi@thl.fi

Chairs: Persephone Doupi, Ivan Pristas

PARENT Joint Action - Cross-border Patient Registries Initiative has worked for a period of three and a half-years towards the goal of increasing the added value of existing or newly founded patient registries across EU Member States. The PARENT Joint Action consortium, its Associated Project Groups and a wide network of stakeholder representatives have specifically focused their efforts at improving the quality, reliability and cross-border usability of EU-patient registry data. Our vision has been to contribute towards the creation of an electronic health data infrastructure for European research, development and informed policy making, by focusing on the needs and specific challenges concerning secondary use of health data. Having a specific emphasis on cross-border collaboration we prioritized the areas of interoperability and harmonization of activities across all levels necessary.

Demonstrating the findings and products resulting from this work to the European Public Health community has a two-fold aim:

(a) increase awareness and activate dialogue on the availability of tools and guidance supporting the public health community in the utilization of patient data repositories.
(b) provide a thorough understanding of policy developments and actions in the area of eHealth and Public Health, which will be shaping EU-research in the near future.

In addition to being an excellent educational and knowledge-update opportunity for workshop participants, the interactive format of the workshop will allow PARENT Joint Action partners to receive valuable feedback and insight for future work in the area of patient registries.

Key messages

- Patient registries enhanced by the use of information technology applications offer enormous opportunities to improve informed decision making about individual patients, as well as entire populations
- Harmonized practices, concerted policy actions and new ways of collaborating across disciplines and stakeholders are essential in registry data governance supporting research and quality of care

The PARENT Joint Action - An overview

Marija Magajne

M Maganje[1], M Zaletel[2], P Doupi[3]
[1]National Institute of Public Health, Ljubljana, Slovenia
[2]National Institute for Health and Welfare, Helsinki, Finland
Contact: marija.magajne@nijz.si

Due to their sheer number and large volume of collected medical information, patient registries present significant potential for research and public health improvements in the EU but often remain underutilized. The Joint Action PARENT (Cross-border PAtient REgistries iNiTiative) started in 2012 and will complete its activities by the end of 2015. Eleven associated partners have actively participated in the core activities of the Action, while more than ten collaborating partners added valuable contribution to PARENT outputs. This presentation gives an overview of the Action's objectives and outputs, which will be addressed in more detail during the rest of the workshop.

The main objective of PARENT Joint Action is to support EU Member States in developing comparable and coherent patient registries in fields where this need has been identified (e.g. chronic diseases, rare diseases, medical technology) by streamlining and harmonizing the management and governance of patient registries. Work towards these goals has proceeded along two complementary strands.

On the one hand, a comprehensive set of recommendations and specific guidelines supporting methodology, development, implementation, governance and improvements of national and local patient registries was developed, grounded on two main principles: relationship to and dependence on Electronic Health Records as the primary source of data and the need for secondary usage (on national and cross-border level) of patient registry data. On the other hand, activity plans, business model options and policy proposals ensuring sustainability of cross-border collaboration on usage of patient registry data, as well as suggestions for future activities to support implementation of the cross-border health care Directive were developed and elaborated in close dialogue with a variety of other EU-funded projects and representatives of stakeholder groups.

Overview of key EU policy developments and their impact on demand for patient registry data

Persephone Doupi

P Doupi[1], A Vuori[1], H Karanikas[2]
[1]National Institute for Health and Welfare, Helsinki, Finland
[2]National and Kapodistrian University of Athens, Greece
Contact: persephone.doupi@thl.fi

PARENT Joint Action is bringing EU patient registries into the spotlight, by examining their role and possible utilization in the context of implementing Directive 2011/24/EU on the application of patients' rights in cross-border healthcare or, for short, cross-border healthcare Directive. PARENT acknowledges that research performed with the aid of patient registry data can provide answers to issues critical in the assessment of effectiveness and efficiency of healthcare services, which in turn are essential to the quality and sustainability of healthcare systems as a whole.

In order to identify potential roles for patient registries in conjunction to the Directive's various requirements and objectives, an understanding of the related policy and regulatory EU-landscape is also required. The overarching issue is the forthcoming Data Protection Regulation and its impact on the operational framework for secondary use of health data. In addition, amendments in the legislative context concerning both medicinal products and medical devices - although at a difference stage of progress - place a clear emphasis on ensuring patient and consumer safety and, as we will demonstrate, make patient registry data an invaluable resource for pertinent research. Similarly significant developments have taken place with regard to Clinical Trials and European Reference Networks legislative instruments.

The need for, as well as demands on patient registry data in this new and still changing policy context will be illustrated utilizing examples generated through the collaboration between PARENT Joint Action and the Health Technology Assessment community.

Methodological Guidelines and Recommendations for Efficient and Rationale Governance of Patient Registries

Metka Zalatel

M Zaletel[1], M Kralj, M Magajne, P Doupi[2]
[1]National Institute of Public Health, Ljubljana, Slovenia
[2]National Institute for Health and Welfare, Helsinki, Finland
Contact: metka.zaletel@nijz.si

A key task of the PARENT Joint Action is to provide Member States with guidelines and recommendations on improving registry quality and interoperability readiness which in turn can encourage and improve the use of data for secondary purposes in a cross-border setting. By improving registry interoperability and secondary use of health data the total costs of data acquisition can be substantially reduced. Moreover, the streamlining of governance and management processes supported by the PARENT guidelines implementation and use will provide registry holders with the knowledge necessary to address e.g. questions of data protection and other central administrative matters.

Approximately 40 authors contributed to the Methodological guidelines and recommendations for efficient and rational governance of patient registries. In addition, other experts from across the EU generously contributed their knowledge and insights on the topic, through participations in workshops and review of materials.

The Guidelines were created to provide practical and 'hands on' advice to set up and manage patient registries as well as to enable secondary use for public health policy and research. Guidelines' chapters cover central issues regarding registries' operations, such as definition and types of registries, interoperability aspects, requirements for cross-border use of patient registries, how to create a registry, how to develop and implement the patient registry information systems, how to run a registry, quality dimensions of registries, changing and stopping registries and re-use of registry data. The use and maintenance of the Guidelines is supported by a Wiki tool.

While the Guidelines are a first step towards greater interoperability of patient registries, a number of exciting and complex challenges still lie ahead, requiring continuous efforts to ensure that we utilise the full value of patient registries.

Introducing tools and actions towards IT-enabled, higher quality patient registries - Framework presentation: PARENT Registry of Registries and Assessment Tool

Ivan Pristas

I Pristas[1], V Pajic[2], B Plese[3], M Brkic[4], M Milos, M Kostesic, A Vrecko[2]
[1]Croatian Institute of Public Health, Croatia
[2]Slovenian Institute of Public Health, Slovenia
Contact: ivan.pristas@hzjz.hr

The PARENT Framework is a collection of resources and recommendations (business, organisational and technical) that facilitate the development and governance of patient registries according to defined principles. As part of the framework pilot, the PARENT Registy of Registries with the Assessment tool contributes to a number of services, which will be presented and discussed during this presentation:

- Information gathering about existing patient registries in EU Member States;
- Provision of a systematic and adaptable registry overview, assessment, analysis, research and comparison tools;
- Continuous strategic and operative adjustment, expansion and development based on monitoring, analysis, research and comparison of the registers, as well as stakeholder needs, requests and contributions;
- Development of tools for registry holders, researchers, professional organizations, public officials, patients, commercial and non-profit organizations, individual users and other stakeholders that support PARENT Framework usage for development, operative and user needs,
- Support for stakeholder participation, cooperation, interoperability improvement and integration;
- Provision of virtual RoR views (subsets of PARENT RoR) for specific national, professional or task-related needs without the need to develop independent organizational and technical capacities, and with inherent PARENT RoR integration;

On the governance and organizational level, provision of support services to PARENT stakeholders, registry holders, interest groups and user profiles for quality assurance and enhancement, standardization, patient registry development and maintenance, as well as for national and cross-border interoperability.

Future trends: the convergence of activities between eHealth, Public Health and Genomic Medicine–proposed policy actions

Persephone Doupi

P Doupi
THL - National Institute for Health and Welfare, Helsinki, Finland
Contact: persephone.doupi@thl.fi

Directive 2011/24/EU on the application of patients' rights in cross-border healthcare or, for short, cross-border healthcare Directive has set the target of ensuring "effective methods for enabling the use of medical information for public health and research". One of the tasks of Work Package 6 of the Joint Action was to provide a specific plan of activities and policies to further develop eHealth-enabled registries as a support mechanism for the implementation of the Directive on cross-border health care. Concerted and sustained research, policy and deployment actions in the area of eHealth have thus far successfully promoted the interoperability of data generated during the provision of healthcare services. Ensuring the interoperability of existing data collections in the context of their secondary use is the essential next step, closing the circle in the added value generated by eHealth tools and applications. Sustained effort is required to help bring closer cooperation between the production of electronic clinical and administrative health information for primary purpose and for secondary use. Ideal test beds for solutions proposed to address information exchange needs are the cases of the European Reference Networks and Patient Registries, both general and specific, such as those of Rare Diseases. The results of pertinent activities should become in turn part of an EU eHealth Strategy and Roadmap.

3.C. Workshop: Sex workers health and rights: rethinking law and policy in Europe

Organised by: Open Society Foundations

Chair: Sebastian Kohn

Across Europe, sex workers' health and rights are under threat. Despite well-documented negative consequences of criminalization, several countries have recently adopted or are considering laws that criminalize sex work. The paramount objective of abolishing sex work is often pursued with scant regard for the well-being and rights of individuals who sell sexual services, and law and policy are often developed without input from sex workers. Yet, research and practical lessons from other parts of the world show that decriminalization of sex work is best practice policy in terms of promoting health and rights of sex workers. This panel will discuss recent criminalization efforts in Europe and what Europe may learn from global developments.

Presenters and panellists:

Niki Adams, English Collective of Prostitutes, United Kingdom
Luca Stevenson, International Committee for the Rights of Sex Workers in Europe (ICRSE), The Netherlands
Stasa Plecas, Sex Worker's Rights Advocacy Network, Hungary
Kate Shannon, British Columbia Center for Excellence in HIV/AIDS, Canada

3.D. Skills building seminar: Scaling up (pilot) projects successfully - Lessons from theories and experiences

Organised by: WHO Regions for Health Network, EUPHA Section PH Practice and Policy, euPrevent
Contact: Kai.Michelsen@maastrichtuniversity.nl

Chairs: Francesco Zambon, Brigitte van der Zanden

Public health practitioners involved in project and programme development are often faced with the challenge of expanding or replicating (pilot) projects beyond the setting they were initially designed for. Expansion and replication are thereafter referred to by the term 'scaling up'. A project can be scaled up across political or administrative structures belonging to the same region/state, but also across regions belonging to different countries (cross-border setting) within the European Union and the European Region of WHO.

Local and regional actors play often a prominent role in the scaling up process. Within the WHO Regions for Health Network, a working group has been set up to work on this know how area. The working groups builds on the work of ExpandNet (www.expandnet.net), further conceptual frameworks addressing the dissemination and implementation of innovations, and practical experiences of public health practitioners from WHO RHN member regions and other interested public health professionals.

The workshop aims to support especially but not only local and regional practitioners by stimulating an exchange of expertise on the major variables affecting scaling up of projects in a positive or negative sense - and by extrapolating practical advice both for those working on scaling up 'their' project and for those who would like to replicate innovative practices which have been implemented somewhere else. Further, it will be discussed how to create 'scaling up friendly environments'. To stimulate the exchange of expertise, presentations will include: an overview on conceptual frameworks addressing crucial aspects for scaling up, results of a survey on scaling up projects, and case studies on scaling up projects in international contexts.

Target groups are public health practitioners being involved in project and policy development and implementation.

Key messages

- Recommendations for the management of scaling up projects must take a mismatch between available theoretical frameworks and perceptions of practitioners into account
- A frequent problem for effective replication is the successfull involvement of relevant stakeholders beyond the scope of the core project members (e.g. political and regional service providers)

Preparing the ground: Effective scaling up - what is recommended in the literature?

Kai Michelsen

K Michelsen
Department of International Health, Maastricht University, Maastricht, The Netherlands
Contact: kai.michelsen@maastrichtuniversity.nl

'Scaling up' refers to 'efforts to increase the impact of innovations successfully tested in pilot or experimental projects so as to benefit more people and to foster policy and programme development on a lasting basis.'

Publications on scaling up projects and related topics (e.g. diffusion, dissemination and implementation of innovation, policy transfer and learning etc.) present a couple of frameworks to organise and structure issues, factors and variables being crucial for success or failure. Encompassing frameworks address e.g. characteristics of the innovation, communication and influence between the poles of diffusion and dissemination, system antecedents and readiness for innovation, characteristics of adopters, assimilation, implementation, linkages between the design and implementation stage, as well as the outer context (Greenhalgh et al. 2004).

A review of these frameworks has been used to develop a generic and pragmatic checklist to support public health practitioners and policy makers in successful scaling up activities. The checklist has to be adapted to concrete settings and aims primarily to manage the process within a given environment. But it aims also to support reflections on promoting or hindering environments and measures to create more supportive environment.

The presentation will introduce the checklist and the underlying concepts and conceptual frameworks. It prepares a critical discussion and reflection of theoretical assumptions from the perspective of practitioners in the following workshop presentations.

The scaling up survey - an empirical check of theoretical assumptions

Odile Mekel

O Mekel, G Ward
Landeszentrum Gesundheit Nordrhein-Westfalen, Bochum, Germany
Contact: odile.mekel@lzg.nrw.de

To complement the review of theories and conceptual frameworks, a study on practical experiences with scaling up projects was conducted to get more insights in practitioner's perceptions of promoting and hindering factors.

Methods

During October / November 2013 a questionnaire was sent to WHO RHN members and their subsequent regional / local partners (a reminder was sent out in January 2014). Question items were related to the description of the project itself, whether the project or project elements were transferred to or adopted from other regions, and to promoting and hindering factors.

Results

We received 22 completed questionnaires describing 22 projects located in WHO member states. The majority of the reported projects are implemented on local ($n = 6$), regional ($n = 10$) or euregional, national and international level ($n = 6$). Political support on all administrative levels (national, regional, local), project steering by external experts, proximity of project partners, adequate subsidy funds and project evaluation were mentioned as the main promoting factors for successful project transfer. Financial problems, problems with applying for funding and amount at administrative work during project implementation scored high as very hindering factors.

Discussion: Reported promoting and hindering factors address only some of the elements, which are addressed in the theoretical conceptual frameworks. That might either indicate that practitioners are not aware of certain critical issues, or that some factors are not relevant for their practice.

Conclusion

A checklist supporting the management of scaling up projects must take a mismatch between available theoretical concepts and frameworks and perceptions of practitioners into account.

Scaling up in projects (1) - the example of DART

Judith Willert

J Willert, E Ledl
NÖ Gesundheits- und Sozialfonds, Sankt Polten, Österreich
Contact: judith.willert@noegus.at

EU Projects often have the goal to develop and scale up innovative interventions. Goal of the INTERREG IVC project 'DART' (Declining, Ageing and Regional Transformation, 2010–2012) was to establish an integrated approach for policy recommendations, to adapt regional policies and public services regarding demographic change.

DART raised awareness for this topic, increased knowledge and assessed the role of public services in measuring success in declining and ageing regions. Innovative and integrated solutions maintained the quality of life and social inclusion in declining and ageing areas.

Regarding scaling up activities, project experiences highlight the following critical moments:

1. 'System Readiness': The project provided regions an opportunity to connect with other regions with similar problems and to transfer effective practices to the own region. This happened only when the region was not only open-minded for the problem, but also for possible solutions coming from other regions.
2. Communication and Dissemination: Scaling up was done in a controlled and planned way, mainly directed by the partners responsible for dissemination. It was possible to reach the partners themselves in the partner regions, but to disseminate information within the region was a challenge. An extra challenge is to find network partners within the regions that are necessary for implementation and sustainability. (External) Expert opinions were promoting factors.

It is important to involve the regional partners, not only during the project, but also before the project starts.

Promoting scaling up in border region - the example euPrevent

Brigitte van der Zanden

B Van der Zanden, KH Feldhoff
euPrevent, Maastricht, The Netherlands
Contact: vanderZanden@euprevent.eu

Border-regions are challenged by needs for cross-border cooperation and offer opportunities for mutual learning. They can be seen as laboratories for cross-border cooperation and integration within broader international contexts - and for scaling up projects across borders.

The EMR consists of regions in Belgium, Germany and The Netherlands. It has a long history in cross-border cooperation with regard to (public) health services as well as preventive measures. Many activities aim to scale up or implement projects in the EMR. Examples are e.g. projects concerning MRSA, risky behaviour among youth and overweight. The foundation euPrevent has been set up to support the coordination and management of these activities - in an environment with political and structural differences between regions, including political, administrative and health system structures, with different stakeholders.

In a cross border setting, implementation processes (structural differences in health services, decision-making, internal communication, external collaboration) are very different and can complicate scaling up.

Experiences show that organizational structures like euPrevent can effectively support scaling up in some areas, while capacities and opportunities are constraint in other areas.

A structure like euPrevent can contribute to decrease some of the hindering factors which relate to scaling up. For example firstly to involve partners beyond the scope of single projects, and on a continuous and regular basis. And secondly involving the regional external partners in preparation of project ideas and the implementation and sustainability process. But:

- While 'needs' of adopters are seen as a critical variable for successful scaling up, the motivation for the participation in cross-border projects are based on different needs.
- Even with equal needs, the motivations to work in a project differ (e.g. intrinsic, content driven motivation vs. extrinsic financial motivation).

3.E.: Workshop: All for Health Health for all. Thinking beyond boundaries

Organised by: Austrian Association of Public Health, Vienna, Austria
Contact: thomas.dorner@meduniwien.ac.at

Chair: Thomas Dorner

"All for Health – Health for all" Is the motto of the 9th EPH Conference next year in Vienna. Different boundaries have to be overcome towards health for all. Those include boundaries due to geographic regions, different professions, different ideologies or different political sectors. This workshop presents examples from Austria and Europe as to how boundaries are overcome. Gabriele Gruber presents the Austrian health targets which are based on health promotion. In developing these targets, relevant political sectors as well as scientific societies were involved. This is an example of overcoming boundaries due to political resorts. Thomas Neumann, shows how health insurance companies can contribute to overcoming boundaries of a traditional nature. Viktoria Stein presents examples from across Europe of how to overcome boundaries in health care. Manfred Cassens, University of Applied Sciences, Munich, talks about overcoming boundaries in health promotion. Christian Lackinger, Austria, gives examples of overcoming personal boundaries in sports and physical exercise. Finally, a health promotion program by the Medical University Vienna will be presented, in which boundaries due to traditional health professions had to be overcome.

Health targets for Austria: a broad Health in All Policies process

Gabriele Gruber, Austria

Gabriele Gruber, Sabine Haas, Gudrun Braunegger-Kallinger, Christine Knaller, Petra Winkler
Gesundheit Österreich, Austria

In 2011 the Ministry of Health set up a broad participatory process with the involvement of 40 institutions from different sectors to jointly develop health targets. In 2012 10 health targets for Austria were approved by the Federal Health Commission of Austria and the Austrian Council of Ministers. These targets provide a common framework for coordinated action, for the health sector and beyond. They will be in force for the next 20 years. Framing Austria's health targets on a broad basis has been an essential precondition for the success of the process. The overall target that has been defined is to improve the health of all people living in Austria, irrespective of level of education, income, gender, ethnic or geographical origin.

The process that Austria started in order to define health targets has been regarded as exemplary at the international level, because all relevant political and social stakeholders have been actively involved. In addition, everyone interested in this topic was invited to express their views and opinions on an online website. Framing Austria's health targets on a broad basis has been an essential precondition as many factors relevant to health are situated outside the health-care system. Participation of various stakeholders continues to be a key element throughout implementation. In 2013 the first intersectional working groups started to develop concepts that include specific strategies and measures to put the health targets into practice. At the moment 5 out of 10 health targets were edited in working groups. Monitoring takes place on 3 levels: meta-indicators for the 10 health targets, one or two more detailed indicators for each specific health target with target values and measurement of the success of specific measures that working group members define.

Healthy choices promotion of healthy behaviour: the contribution of social insurance

Thomas Neumann
SVA (Social Insurance Authority for Business), Vienna, Austria

The Social Security Authority for the self-employed people in Austria (SVA) has launched a preventive healthcare program in 2012. The aim of this program is to strengthen the individual responsibility for health and to promote a healthy lifestyle. All insurants are invited for a general health check and together with their family doctor they agree on individual health targets. If these targets are being met within six months the deductibles for healthcare services in the outpatient sector will be reduced from 20 to10 percent for a period of at least two years. Evaluating this program, we found the following results:

- The initiative increases participation in the well-established Austrian Health Screening Program (Vorsorgeuntersuchung) significantly (+ 38 percent 2012, + 20 percent 2013 and 2014).
- The health status of the successful and non-successful program participants (insurants did or did not achieve all their health targets) was significantly different, even at the time of the initial health check. The successful participants had better health indicators with respect to blood pressure, body weight, exercising, smoking and alcohol consumption. The participants, who finally applied for the reduction of deductibles, improved their health indicators between the initial and the follow-up health check.
- On average, the successful participant saves 65.6 Euro per year in deductibles.
  - ○ The first participation in the Austrian "Vorsorgeuntersuchung VU" in 2012 is associated with an increase in outpatient healthcare expenditures by 165 Euro and a decrease in hospital days by 0.26 in the same year as compared to the group of insurants, who did never participate in VU screening exams.
  - ○ The socio-economic characteristics of the family doctor, such as age and sex, have a significantly impact on the insurant's probability to participate in preventive health checks.

Integrated care in Europe: overcoming boundaries and building bridges to improve Health for All

K Viktoria Stein
International Foundation for Integrated Care, Oxford, UK

Integrated care has emerged as a viable approach to overcome deficiencies in the care management for people with chronic diseases and frail elderly, while at the same time improving efficiency, quality and effectiveness of the health services provided. The focus has been on better coordination and integration among health sectors to manage specific diseases. However it has become evident that in order to provide truly people-centred services that promote health, the scope of integrated care needs to be expanded to bridge the gaps not only within the health system, but also between the health and social system, among others. To answer to the complex needs of people with co-morbidities interest has also grown in the better integration of public health and preventative services.

These aspirations necessitate the overcoming of boundaries between different professions, different organisations and different attitudes. Experiences across Europe have demonstrated that it does not suffice to tackle only one of these barriers, but that sustainable solutions need a multi-faceted approach which changes the processes and structures of service delivery just as much as the culture and attitudes of the people involved. Most importantly, patients and communities need to be actively involved in this process in order to ensure that their needs are met. Experience has also shown that the core principles of integrated care, such as care coordination, patient-centredness or timely access to care, need to be contextualised and adjusted to local circumstances in order to be successful.

Illustrated with examples from across Europe, this presentation will highlight that it doesn't matter on which level integrated care is started. The importance lies in creating a common narrative, building a guiding coalition for change and meeting on equal terms. Ultimately, the aim must be to provide integrated services along the continuum of care and taking a life-course approach to improve health for all.

DIN EN ISO certification of a community 'Healthy Community'

Manfred Cassens, Maren Porzelt
FOM Hochschule gGmbH - Hochschulzentrum München, München, Germany

Introduction: The concept of "Healthy Community" has received enforcement in Austria due to new governmental health objectives. Aiming for concrete operationalization the concept of DIN EN ISO certification for the "Healthy community" is analysed.

Observation: Increasing emphasis in public health research has been given to the so called everyday life observation and its quality associated research approaches. Observations and document analysis building thereon led to the preliminary conclusion of missing or qualitatively deficient evaluations and to the more fundamental question of an adequate and stabilizing continuous improvement. Which contributes to an externally-objective evaluation: Can quality assurance structure specifications be transferred to the community system? The research design was based on the constructivist systems theory.

Research Design: 3 Communities at the Seefeld region followed a recommendation by the Institute of Public Health to apply for the DIN EN ISO certification.

The use of external audit systems as an evaluation tool within a quality management system is established. In parallel the process of implementation is being analysed during the phase of development, by means of a qualitative, subject-oriented design: Case studies in connection with phenomenological analysis are analysed and interpreted in connection with leading question focusing thereon.

Positive results: Identification of redundancies (efficiency increase); Interface and structure related processes (effectiveness increase); Improvements of the consciousness for the global health systematic (Health in All Policies)

Negative results: Certification is considered an additional

Summary: Further development of 'Healthy community' to DIN SPEC in combination with organizational enabling (Quality Manager, Certification Support) to the ÖGD.

Science or fiction? Are physical activity recommendations realisable?

Christian Lackinger
SPORTUNION Österreich, Vienna, Austria

International and national physical activity recommendations described a minimum of weekly 150/75 minutes of moderate/vigorous intense aerobic physical activity and additional muscle strengthening activities to gain substantial health benefits. However, a large number of adults in western countries miss this weekly goal. 'Health in All Policies' is a slogan since decades, but rising health enhancing physical activity levels on population level failed so far.

A limitation in many arrangements is that cooperation between different sectors is rare. A promising approach was realised in Austria since 2007, where the medical sector, health insurance companies and regional sports clubs cooperated and build up target group specific exercise classes for patients suffering from type 2 diabetes in various regional settings. In this programme, the physical activity recommendations could be realised. In 2015, such exercise programmes could be integrated in a physical activity strategy in a federal state in Austria.

Another problem is that some actions are insufficient to gain substantial health benefits. In other words, accumulation daily 10,000 steps might results in 0 minutes of moderate or vigorous physical activity.

Boundaries between different health professionals do not contribute to achieve physical activity goals. Approaches to promote physical activity through exercise prescription or exercise referral did not result in the requested success. An adequate access to resources to support health enhancing physical activity can only be realised, if surfaces at the health sector and community based facilities know and cherish each other and finally cooperate together.

Lay elderly volunteers as buddies for old subjects in a community-based health promotion project: nutrition optimisation, physical training and improvement of social support

Thomas E Dorner, Christian Lackinger, Sandra Haider, Eva Luger, Ali Kapan, Eva EE Schwarz, Karin E Schindler
Centre for Public Health, Medical University Vienna, Austria

In elderly persons frailty and malnutrition are very common health threats and can lead to serious health hazards. Physical training, adequate nutrition and social support can improve this situation. In Vienna a project was launched in March 2013 with the aim to improve health in (pre)frail community-dwelling old (65+ years) subjects. The project engages elderly (50+ years), lay, fit subjects who work voluntarily as buddies for (pre)frail adults. These buddies visit the (pre)frail subjects at home twice a week, address nutrition-related problems and together perform strength training with a training portfolio. The buddies are trained at the beginning by health professionals and supervised over the study time. It was the aim to improve fitness, health and social networks of both (frail subjects and buddies). In the first three months each couple of buddy and pre(frail) person was assigned to an intervention group or a control group, in which visits were performed twice a week, but without specific intervention. After the first three months, the couples in the control group performed physical trainings and nutrition interventions as well.

35 couples in the intervention group and 31 couples in the control group completed the first three months. Compared to (pre)frail subjects in the control group, those in the intervention group significantly increased their had grip strength, the amount of physical activity, mobility, cognitive performance and their quality of life and decreased their risk for malnutrition, frailty status and fear of falling. The buddies significantly increased their hand gript and leg strength.

The project proposes a novel, cost-effective way to promote health in elderly community-dwelling subjects, in which all involved parties benefit. The magnitude of improvements in health outcomes in this project that is carried out by lay buddies approximates the magnitude that is achieved in health promotion projects carried out by health professionals.

3.F. Round table: Implementing personalized prevention in the health care: proposal for a new framework

Organised by: Section of Public Health Genomics and the European Observatory on Policy and health Systems
Contact: sboccia@rm.unicatt.it

Chairs: Roza Adany, Stefania Boccia

Extensive development in genomic medicine and related sciences are already providing opportunities for public health interventions to improve public health through personalized prevention (PP) programs. PP recognizes that people differ in their risk of disease and in their likely response to preventive programs. There is a large consensus that PP is a driver of innovation for research and health care, and also for the health care system and industry as a whole. The current scenario, however, see health care at a crossroad with financial pressures undermining the sustainability of the health systems. Expenditure increase due to demographic changes, greater patient expectation, and scientific and technological advances require new models of governance and new approaches.

The purpose of this workshop is to present and discuss with policy makers, researchers and educators, health service managers and advisers, a new framework to implement PP in the health care. The discussion will revolve around the role of genome-based and digital science and technologies in the development of future sustainable health systems. The framework will be illustrated in the context of the knowledge of the current scenario of the policies of public health genomics in the Member States, where existing, as reported in the forthcoming publication of the European Observatory.

Emphasis will be given to the role of education of professionals, and to a 'proper' citizen empowerment.

The added value of the workshop is to discuss on the future path of the prevention in the new context of personalized medicine, and how this should integrate the currently available approaches in a sustainable way.

Key messages

- A sustainable health care require new paradigms in prevention
- A personalized approach to prevention that combines 'omics' information and the use of digital technologies requires new policy frameworks for a proper implementation in the health care

A framework for new practice in public health genomics

Hilary Burton

H Burton[1], S Boccia[2], R Zimmern[1]
[1]PHG Fundation, Cambridge, UK
[2]Institute of Public Health, Università Cattolica del Sacro Cuore, Rome, Italy
Contact: hilary.burton@phgfoundation.org

Sustainable health systems will require a shift from treatment of established disease to early diagnosis and prevention and the empowerment of citizens to take greater responsibility for their health. New biomedical and digital science and technologies, alongside the encouragement of societal changes that support individualism can play an important role tailoring interventions to an individual's biology and forming the basis for personalised prevention. At whole population level this requires understanding of the combined effects of genetic and environmental determinants of disease risk and the targeting of interventions to subsets of the population and the use of genomic markers for early detection of disease or the reduction of disease progression. On a wider basis, public health leaders have a responsibility to help catalyse change in the organisation of health services and public policy to ensure that genomic and other technologies are used to best effect. Clinical and laboratory services may have to be reconfigured with centralisation of expensive technologies and expertise; point of care diagnostics may be developed and all must be integrated with greater use of digital technologies such as wireless sensors, new imaging and mobile connectivity. The move to empower citizens will mean that they will demand and use access to information about themselves with implications for electronic health records, biobanking, data storage and sharing. And finally societies will need to address the ethical and political implications of personalised prevention considering the balance between solidarity and autonomy, privacy and datasharing, potential new inequalities, tolerance of diversity in interventions offered to citizens and the regulation of the commercial sector producing devices and diagnostics, direct to consumer products and services. These elements form a framework for new practice in public health genomics which can have a major impact on health and healthcare.

Public Health Genomics: moving towards the implementation of dedicated policies in Europe

Walter Ricciardi

W Ricciardi[1], P Villari[2], M McKee[3], R Zimmern[4], S Boccia[1]
[1]Institute of Public Health, Università Cattolica del Sacro Cuore, Rome, Italy
[2]Department of Public Health and Infectious Disease, Sapienza University, Rome
[3]European Observatory on Policy and Health Systems, London, UK
[4]PHG Foundation, Cambridge, UK
Contact: wricciardi@rm.unicatt.it

The application of genomics in health care has the potential to reduce the burden of disease and improve population health. This will be most successful if it is developed as a natural extension to and a complement of traditional public health approaches. A proper integration of genomics into health care, however, requires that health system policy-makers, stakeholders and knowledge brokers are aware of the potentials and limits of the use of genomics in disease risk prediction, diagnosis and treatment, so that they can provide the necessary policy response. Given the complexity of the issue to be addressed, policy responses need to be multidimensional and involving multiple actors, health professionals, decision makers in health, academics, patients and citizens. Public health professionals and those who are responsible for designing health systems have a duty to engage and facilitate the implementation process in order to ensure a proper balance, and to make policy makers aware of its relevance. Education and health literacy of the professionals, citizens, policymakers and other stakeholders is an important issues for proper implementing genomic medicine. These issues have been discussed during a meeting of the 28 Chief Medical Officers of the Ministry of Health of the Member States, who participated a convened in Rome in Oct, 2014 to discuss on the European policies of public health genomics, October. The meeting was organized by the Italian Ministry of Health during the Italian Presidency of the Council of European Union, and participated by the European Observatory. As a follow up of this meeting, the European Observatory is elaborating a policy summary on the policies of public health genomics in Europe, that will further incorporate elements of the framework discussed by Hilary Burton in this round table.

Ethical Challenges of Big Data in Public Health

Effy Vayena

E Vayena
Institute of Biomedical Ethics, University of Zurich, Zurich, Switzerlan
Contact: vayena@ethik.uzh.ch

Digital epidemiology, also referred to as digital disease detection (DDD), is motivated by the same objectives as traditional epidemiology. However, DDD focuses on electronic data sources that emerged with the advent of information technology. It draws on the explosive growth in mobile devices, and online sharing platforms, which constantly generate vast amounts of data containing health related information, even though they are not always collected with public health as an objective. Furthermore, this novel approach builds on the idea that information relevant to public health is now increasingly generated directly by the population through their use of online services, without their necessarily having engaged with the health care system. By utilizing global real-time data, DDD promises accelerated disease outbreak detection, and examples of this enhanced timeliness in detection have already been reported in the literature. The emergence of DDD promises tangible global public health benefits, but these are accompanied by significant ethical challenges. While some of the challenges are inherent to public health practice and are only accentuated by the use of digital tools, others are specific to this approach and largely unprecedented. They span a wide spectrum, ranging from risks to individual rights, such as privacy and concerns about autonomy, to individuals' obligations to contribute to the common good and the demands of transparency and trust. We have grouped these concerns under the headings of context sensitivity, nexus of ethics and methodology, and boot-strapping legitimacy. It is vital that engagement with these challenges comes to be seen as part of the development of DDD itself, not as some extrinsic constraint. We intend this paper to be a contribution to the development of a more comprehensive and concrete ethical framework for DDD, one that will enable DDD to find an ethical pathway to realizing its great potential for public health.

The role of innovation in health care sustainability

Raniero Guerra

R Guerra, A Federici
DG Prevention, Italian Ministry of Health, Italy
Contact: r.guerra@sanita.i

The complexity of 'omics sciences and related applications requires a governance from the health care systems.

In Italy, first Country in Europe, the National Prevention plan foresees since 2012 the macro-area of personalized medicine, along with primary/secondary/tertiary traditional prevention areas. In 2013, to concretely realize the personalized prevention plan, the State-Region conference approved and published the national guidance of public health genomics, and currently the action plan is under development. The topic of innovation in health care, however, has not been addressed in a multi-dimensional scale, so far.

Innovation in the 'omics science has currently two main goals:

- Knowledge generation (including translational/applied research);
- capacity building through education of the future health care professionals;

Knowledge generation in health care mainly consists in:

- use of Health Technology Assessment in the newly available 'omics applications that can feed guidelines on preventive services;
- Computational medicine;

Capacity building of health care professionals mainly consist:

- educating the physicians and related relevant actors (e.g., biologists working in laboratories, nurses, pharmacists) in understanding and handling the complexity of the information;
- set up new paths for physicians within the resident school in public health and preventive medicine in order to make them working as clinician of the personalized prevention;
- Training of a workforce of bioinformatics
- Set up innovative tools for distance learning training of 'omics science of general practitioners.

Personalized pREvention of Chronic Diseases: the PRECeDI H2020 project

Stefania Boccia

R Pastorino, S Montante, L Motta, S Boccia
Institute of Public Health, Università Cattolica del Sacro Cuore, Rome, Italy
Contact: sboccia@rm.unicatt.it

The aim of the Personalized pREvention of Chronic DIseases consortium (PRECeDI) is to provide high-quality, multi-disciplinary knowledge through training and research in Personalized Medicine (PM), with specific reference to prevention of chronic diseases. There is a large consensus that PM is a driver of innovation for research and health care, and also for the health care system and industry as a whole. In order to harness the potential of this new concept, the PRECeDI consortium provides a cohesive framework for training staff from academic and non-academic (NA) institutions on research topics related to PM, with specific reference to the prevention of chronic diseases where there is a lack of substantial evidence, though the potential is huge. The acquisition of skills from staff will come from dedicated secondments aimed at training on research topics not available at the home institutions, and attendance to courses, workshops, seminars, conferences. The goal of secondment is to enable staff to make informed decisions for appropriately serve health care systems, new biotech industries and policy makers at the dawn of the post-genomic era. PRECeDI is a multidisciplinary group of institutions working on different facets of PM, from basic research, to economic evaluations, health service organization, and ethical, social, and policy issues. The consortium is embedded in existing cooperation structures, such as the PerMed project and the Erasmus Mundus ERAWEB II program, with additional leading SMEs in Europe and Canada as beneficiaries. The consortium consists of 11 partners, of which 7 are academic institutions and 4 NA, including 2 SMEs. During 4-years, 30 researchers will be seconded to 11 institutions, where researchers will be supported by a team of leading EU scientists in PM related disciplines. In the long run, PRECeDI will foster the integration of PM in the field of prevention, thus contributing to better health for Europe's citizen.

3.G. Round table: What is good public health practice?

Organised by: EUPHA Practice Pillar
Contact: pierfrancesco.tricarico@gmail.com

Chair: Silvio Brusaferro

In a multifaceted environment like Europe, with greatly varying health systems and major health gaps between and within countries, a large number of practices and strategies to improve health are steadily developed, tested and implemented. At the same, there is growing interest in how to harmonize policies and programmes.

In this context, decision-makers and practitioners should be able to search for existing good practices that are proven to be effective and can be transferred and adapted to other contexts. The very first step towards sharing experiences and lesson-learning would be to reach a common definition of what constitutes good public health practice and how can it be evaluated in terms of public health impact (e.g. with regard to effectiveness, reach, feasibility, sustainability and transferability). This could then be followed by making good practices available Europe-wide through an inventory of good practices, submitted by practitioners of every European country. This would be a powerful tool for:

- helping practitioners to solve problems with approaches already proven effective;
- building networks of professionals and institutions working on the same topics;
- collecting information about topics that have higher demands for good practices;
- exchanging information and ideas about methods and tools to evaluate the impact of good practices;
- building implementation tools to help transferability.

The main objectives of this workshop are:

- to develop a common definition of what is good public health practice in Europe;
- to start a process towards building an inventory of good public health practices and making them available for practitioners.

The added value of organizing a workshop on this topic is the possibility to raise interest and possibly involve attending professionals and institutions in the development of a definition of good public health practice and to raise interest in submitting practices for the evolving inventory.

The layout of the workshop is a roundtable consisting of 5 individual presentations, followed by a discussion between the panelists and the audience attending the workshop. This will help to engage professionals in the discussion and, hopefully, in the process of developing a definition and sharing good practices. Panelists and the chairperson will focus attention on both theoretical aspects and practical examples. They will try to promote a 'brain storming' with the audience, starting from the existing critical issues and moving towards the benefits of having a European inventory of good public health practices.

The expected results are: a) increased attention among professionals with regard to the need to develop a European definition of good public health practice; b) soliciting feedback about definitions of good practice and their pros and cons; c) identification of public health topics where some good practices have been identified and successfully implemented; d) engagement of more professionals in the activities of the EUPHA practice pillar.

Key messages

- In Europe a definition of good public health practice is needed as well as tools for transferability
- The workshop aims to open a debate and to raise professional engagement on these processes

The need for new perspectives on good practice to address complex public health problems in Europe

Eric Breton

E Breton[1,2]
[1]EHESP Rennes, Sorbonne Paris Cité, Paris, France
[2]CNRS, UMR CRAPE Centre de Recherches sur l'Action Politique en Europe - 6051, France
Contact: Eric.Breton@ehesp.fr

Across Europe, authorities are persistently questioning the capacity of disease prevention and health promotion programmes and policies to bring about positive changes to the population health; a question that has gained much prominence as austerity measures take their toll. Practitioners are therefore required to defend investment in a given intervention against its costs and benefits; a requirement that stands as a major challenge. In this presentation, we look at two contrasting perspectives (i.e. research-based vs practice-based perspective) on what makes an intervention enter the realm of best practice and argue for an alternative vision of programme planning and evaluation to improve the transferability of actions to other populations.

The research-based perspective produces knowledge on good practice by applying rigorous methodological techniques that isolate the programme from its external environment to achieve high internal validity. A requirement for a successful transfer of the programme to another setting is to preserve its integrity. However this kind of 'boutique programmes' have in many instances proven disappointing when replicated in other milieu; a situation that has brought a number of scholars to account for other neglected programme components such as context, mechanisms, functions, and to give its lettre de noblesse back to practice-based interventions. Programmes emerging from the field are seen as more amenable to transfer as they are solutions stemming from real-life practice, reflecting actual access to resources and set of constraints. Capturing their specific components would allow for their diffusion.

We conclude, by calling for an alternative approach to identification and diffusion of best practice across Europe that includes guiding principles to public health interventions. This is necessary as the current economic crisis and rising social inequities are major threats to the health of the European population.

Good practice in the organization and financing of public health services in Europe

Bernd Rechel

B Rechel[1], *E Nolte*[1], *E Jakubowski*[2]
[1]European Observatory on Health Systems and Policies, London, United Kingdom
[2]World Health Organization Regional Office for Europe, Copenhagen, Denmark
Contact: Bernd.Rechel@lshtm.ac.uk

Background

There is major interest among health policy makers across Europe in how to improve the organization and financing of public health services. Despite growing evidence on good public health practice, the areas of organization and financing have not received much attention so far. This presentation presents preliminary findings of an internationally comparative study undertaken by the European Observatory on Health Systems and Policies and the World Health Organization Regional Office for Europe.

Methods

Our study draws on (i) a review of available evidence, (ii) reviews of the organization and financing of public health services in eight European countries (England, France, Germany, Italy, Moldova, the Netherlands, Slovenia and Sweden) using a structured data collection template, and (iii) an exploration of the experiences in these countries to address three 'tracer' public health problems (obesity, alcohol control and antimicrobial resistance) using document review and key informant interviews.

Results

Preliminary findings indicate that organizational and financing arrangements for public health services differ widely, reflecting the wider political, administrative and health system contexts of the countries examined. This also applies to the areas of obesity, alcohol control and antimicrobial resistance, where major differences can be found with regard to the content of policies, the role of public health organisations in shaping and implementing strategies, funding mechanisms to support action, the workforce involved, and (formal and informal) mechanisms for intersectoral governance and collaboration. These differences have an impact on the scale of the selected public health problems and progress in addressing them.

Conclusions

Less well performing public health services can learn from better performing ones, but change will have to take account of contextual factors.

Making healthy choices easy - good practices in food services in Finland

Enni Mertanen

E Mertanen
JAMK University of Applied Sciences, Jyväskylä, Finland
Contact: enni.mertanen@jamk.fi

Eating out is very common. Altogether 904 million meals were eaten out in Finland 2013, which means on average 167 meals per inhabitant. The nutritional quality of those meals can either worsen or enhance public health. Recent research has shown nudging improving customers' choices in buffets. However, in Finland the general practice for years has been to organize the buffets so that the healthy choices are the easiest ones to reach, but no research of the impact has been done.

The aim is to define how simple practical solutions can help customers to choose the healthiest items by nudging or making healthy choices the easiest ones to reach.

Nudging customers to choose healthiest choices in self-service situations needs customer-oriented thinking and public health understanding. The basic idea is very simple: the healthiest choice is always the easiest one to reach, if there is a less healthy choice available, a customer needs to make an effort to get it. The order of the buffet meal items is as follows: first salads followed by potatoes, rice or pasta, then cooked vegetables and, finally, fish, poultry or meat dishes, respectively. With salad dressings, fats and drinks, the healthiest choice is always the first one. Photos about practical solutions will be shown in the workshop.

Organizing buffets in a customer-oriented and health-conscious way has been common for years if not even for decades in Finland. The nudging research has shown that the practice could also be implemented in other countries. The efficiency of the practice so common in Finland should be studied in some other country in order to prove the usefulness of it.

Improving clinical and non-clinical practices for IAP prevention in the Intensive Care Unit

Antonella Agodi

A Agodi
Department 'GF Ingrassia', University of Catania, Catania, Italy
GISIO-SItI, Italian Study Group of Hospital Hygiene - Italian Society of Hygiene, Preventive Medicine and Public Health, Italy
Contact: agodia@unict.it

Background

Intubator Associated Pneumonia (IAP) prevention requires the implementation of best practice guidelines and of interventions useful to guarantee the compliance with those guidelines. IAP prevention strategies, including bundles, have been widely adopted, but results are inconclusive. Furthermore, education alone seems to be ineffective on improving bundle compliance. Here we report an experience from the Italian Nosocomial Infections Surveillance in Intensive Care Units (ICUs) network (SPIN-UTI project).

Methods

Data on characteristics of physicians and ICUs, on clinical and measurement practices for IAP prevention, and on attitudes towards the implementation of a measurement system were collected at the ICU level. Furthermore, for all intubated patients enrolled in the fourth edition of the SPIN-UTI project (2012-2013), compliance with each practice included in the European bundle (Rello et al., 2010) was registered using a dedicated web-based tool.

Results

Although compliance with the European bundle in the participating ICUs was generally low, an evidence of the effectiveness of good bundle practices on the risk of infection was shown.

Conclusions

Our results confirm that the implementation of the bundle is associated with a reduction in the incidence of IAP, but quality improvement strategies are needed to increase bundle compliance. Previous studies reported that the main reason for low compliance was the lack of strict monitoring of bundle practices. In fact, when activity in an ICU becomes ordinary, it may lose its importance. Frequent recall of the necessity of the bundle and the continuous supervision of the ICU staff in addition to education may be a more effective strategy for IAP prevention. Therefore, it is recommended that the infection control stewardship committee in each hospital take charge for the strict supervision of bundle compliance, using dedicated tools.

Why do we need to develop public health good practices in Europe

Silvio Brusaferro

S Brusaferro, P Tricarico
Department of Medical and Biological Sciences, University of Udine, Italy
Contact: Silvio.brusaferro@uniud.it

Issue/problem

In the last decade, considerable efforts have been devoted in Europe to policies and programmes standardization, hoping to reduce the constantly widening health gap between countries. Nevertheless, there are significant differences in the way European countries manage many public health (PH) topics, both at national and regional level. In many PH fields there are evidences that suggest what should be done, but in many cases practitioners do not have access to these advances or fail to implement them. This fragmented situation leads to inequalities and waste of resources.

Description of the problem

Many successful experiences exist at the moment but a definition of the characteristics of a good public health practice in Europe is lacking.

The development of such a definition could facilitate both a common approach to public health programs and the possibility to collect them in an inventory accessible to all interested stakeholders.

Results

The development of this definition should acknowledge the existing fragmented European reality and the need to review criteria reported in literature (i.e. effectiveness, sustainability, transferability, novelty, coherence with practitioners needs); to collect and analyze existing experiences; to involve stakeholders (i.e. professionals, decision makers, citizens); finally to reach a consensus.

As a result a collection of experiences easily available could facilitate dissemination of practices and development of networks based on practices.

Lessons

In all activities to develop definitions and standards promotes common language, culture and tools, reduces variability and facilitates the exchange of experiences.

A definition of good PH practices in Europe could promote the adoption of effective PH programs, reduce inequalities, and save resources.

3.H. Round table: The challenge of reforming the Ukrainian health system at a time of crisis

Organised by: European Observatory on Health Systems and Poicies with WHO Regional Office for Europe
Contact: erica.richardson@lshtm.ac.uk

Chair: Bayard Roberts

Ukraine gained independence from the Soviet Union in 1991 and successive governments have struggled to overcome funding shortfalls and modernize the health care system to meet the population's health needs. In essence the system retains many of the core features of the Semashko model health system, and yet not accessible to many.

A large proportion of total health expenditure is paid out of pocket (42.8% in 2013) and households face inadequate protection from impoverishing and catastrophic health care costs. Chronic underfunding has allowed the gap between the Constitutional promise of universal coverage and the reality of what is provided for free at the point of use to widen. The health workforce is severely formally underpaid and the lack of sustainable health finance system have resulted in a plethora of formal and informal payments.

The current crisis in Ukraine, with increased humanitarian and health-related needs, has been faced with an already over-stretched health services. Severe lack of vaccines, medication, and inability to provide care to many of the internally displaced people, their absorbing communities, the wounded and those who reside in fighting zones are adding more burden. WHO, UNICEF, ICRC and other health partners are working together, to fill-in the gaps. Nevertheless, the Ukrainian Ministry of Health, together with WHO and the donor community are using the time of crisis as a window of opportunity to steer Ukraine into modernizing its health system, in all its functions. The new Health Strategy for 2015–2020 is one of the document were this impetus for change is presented.

In this workshop, we will outline the challenges faced by policy makers in seeking to implement fundamental health system reforms in the face of the ongoing conflict, as well as humanitarian and financial crisis.

Key messages

- Ukraine is undertaking bold reforms at a time of crisis
- The humanitarian crisis will have a lasting impact on the reform programme

Tackling the humanitarian crisis

Dorit Nitzan Kaluski

D Nitzan Kaluski
WHO Country Office, Kyiv, Ukraine
Contact: don@euro.who.int

An about 5 million people are directly affected by the humanitarian crisis in Eastern Ukraine. More than 1.2 million internally displaced people have been registered in Ukraine, of whom about 15% are children and about 60% pensioners. Since mid-April 2014, more that 6,200 people have been killed and more than 15,500 people have been wounded (not including mental health).

It is estimated that 77 out of 350 and 26 out of 250 health care facilities have been damaged or destroyed in Donetsk and Luhansk Regions, respectively. Many clinics and hospitals are closed or only partially operational due to lack of medicines, medical supplies and personnel. Many have run out of basic supplies such as antibiotics, IV fluids, gloves and disinfection tools. Around 1.4 million people require health assistance and primary health care centres and hospitals are struggling to treat the war wounded. Some of the health staff have not been paid, and some have became IDPs.

Donetsk and Luhansk cities were the host for the tertiary expert medical services for their respective oblast populations. However, due to travel and other restriction people who need specialized care cannot anymore access these hospitals.

Communicable diseases are repotedly already on the rise in the conflict affected areas, due to economic isolation, deteriorating water and sanitation conditions and lack of access to adequate health services. Ukraine, has the lowers immunization coverage in Europe, and the fact that no vaccines were procured in the past year just make the risk for severe outbreaks imminent. Lack of funding seriously hampers the health related humanitarian operations

WHO has been filling the gaps by a network of Mobile Emergency Primary Health Care Units and Emergency Primary Health Care Posts. In the session, data on the situation, gaps and needs as well as response will be shared.

System reforms during times of crisis

Erica Richardson

E Richardson
European Observatory on Health Systems and Policies, London, UK
Contact: erica.richardson@lshtm.ac.uk

Many of the key reform challenges policy makers are currently facing involve dealing with Ukraine's Soviet legacies in the way health care is organized and financed. At independence Ukraine inherited an extensive health infrastructure with over capacity in the hospital sector and a strong bias in the system towards inpatient care. This has meant that most resources are spent on running costs for the health infrastructure rather than patient care and primary care has remained weak. However, there are Constitutional barriers to rationalising the hospital stock as well as an historical lack of political will to implement far-reaching reforms.

Underfunding of the health system has meant that since independence, households have not been adequately protected from impoverishing health care costs, despite constitutional guarantees of universal coverage. In part this is related to successive Ukrainian governments' weak capacity to raise tax revenues, but it also highlights the necessity of improving efficiency in the system.

These challenges and legacies are acknowledged in the new National Strategy for Reforming the Health Care System 2015–2020. The Strategy is an ambitious reform programme which commits Ukraine to the path of regaining Universal Health Coverage (UHC), but the greatest ambition is to make efficiency savings in order to reduce health expenditure. State health expenditure accounted for a modest 4.2% of GDP in 2013, but Ukraine is committed to reducing health spending as part of a deal with the International Monetary Fund (IMF).

Cutting health expenditure while reforming the system is a huge challenge, but it will be even more difficult to achieve at the same time as health needs are increasing due to the ongoing humanitarian crisis.

Restoring essential public health functions

Elke Jakubowski

E Jakubowski
WHO Regional Office for Europe, Copenhagen, Denmark
Contact: eja@euro.who.int

The public health system in the Ukraine has recently undergone substantial changes. In 2014 the Government abolished the State Sanitary and Epidemiological Services (e.g. State SES), which was there to maintain some basic population health surveillance and health protection functions up to then. The Central and regional SES network had a number of problems. These included overcapacity in some areas of health protection and inspection which was determined by a complex institutional network of labs and inefficient out-dated and duplicated infrastructures, provision of services to private entities, as well as a high level of under-recorded for-profit activities.

Yet, irrespective of the shortcomings of the SES system, it served as the baseline system enabling the delivery of some essential public health operations in the Ukraine at national, subnational as well as international levels. The very sudden abolishment of the SANEPID system has left 27,000 public health professionals without a job over night and essential public health functions uncovered.

The government requested WHO to provide support in the assessment of essential public health operations to restore the delivery of some of the most basic essential public health operations. These include population health surveillance, monitoring and hazard response, and health protection. These services need to be restored also in view of deteriorating access to essential medical services, including medicines and vaccines supply and an increasing prevalence and risk of communicable diseases outbreaks. There is new impetus for transforming and strengthening disease prevention services to tackle non-communicable diseases with the publication of a new Health Strategy for 2015–2020.

Progress depends on national commitment but also on international engagement and support. Ukraine has a population of 46 million and is in the middle of Europe!

3.I. Regular workshop: The impact of Ebola on public health structures and infectious disease preparedness in Europe

Organised by: EUPHA section on Infectious Disease Control
Contact: aura.timen@rivm.nl

Chair: Dr Mengistu Asnake

In December 2013, the current Ebola Virus Disease (EVD) outbreak began in Guinea and, with subsequent transmission to six other countries across three continents, developed into the largest EVD outbreak ever recorded. On 8 August 2014, the Director-General of the World Health Organization declared the EVD outbreak in West Africa a Public Health Emergency of International Concern (PHEIC). Beyond the death toll which exceeded 10,000, the outbreak has caused immense suffering to innumerable individual and families in West Africa. The outbreak brought healthcare systems in affected countries in West Africa, with repercussions on the incidence of other diseases. Its additional societal and economic harms extended well beyond the geographical area affected by the outbreak.

While the vast majority of cases have been reported from Guinea, Liberia and Sierra Leone, cases have also been reported from 6 other countries including 2 in Europe: Spain and the UK. More European countries have also provided medical care for EVD workers evacuated from the endemic area following potential breaches of personal protective equipment. So far, the effects of the 2014 West Africa EVD outbreak on public health and health care systems in regions distant from the epidemic area have not been well researched. Member states of the WHO European Region have taken various measures to react and prepare for the possible importation of an infectious disease raging thousands of kilometers away. A learning concept of public health science requires that these measures are monitored and evaluated in order to learn about their rationale and perceived success, and to prepare for future challenges in infectious disease control.

This workshop will bring together public health policy makers and practitioners from European countries and beyond to discuss and exchange concepts and experiences gained during the preparation for EVD - in hindsight, as the organisers hope at the time of writing.

Key messages

- The Ebola outbreak provided a major opportunity to reshape public health infrastructures and consolidate collaboration with private partners that deal with communicable disease control
- Financial and risk burden need to be shared proportionally amongst stakeholders, to develop a system that will work, with enough resilience to overcome unavoidable subsystem shortfalls

Preventing Ebola in England

Deborah Turbitt

D Turbitt
Public Health England, London, UK
Contact: Deborah.Turbitt@phe.gov.uk

In order to prevent cases of Ebola from occurring in England during the 2014 outbreak in West Africa Public Health England (PHE) put in place a number of measures.

From October a programme of screening was introduced at five major ports of entry where over 90% of returning travellers passed through. People travelling from affected countries were identified by UK Border Force and directed to screening teams. Returnees were questioned about their activity in affected countries and classified into one of three categories. Category 1 were given information about signs and symptoms and on how to safely access health care if they became ill. Category 2 were given thermometers and advised to monitor temperature twice daily and report to PHE if over 37.5OC. Category 3 were given thermometers and required to report twice daily temperature.

To date a total of 7,354 returned travellers have undergone screening and monitoring. This included members of the public, healthcare workers, military personnel and media.

PHE also used the Imported Fever Service to assess returned travellers with symptoms and provided testing for those considered high possibility for Ebola. 321 enquiries were made to the service with 185 tests conducted of which three were positive.

There have been three cases of Ebola treated in England - two diagnosed abroad and one imported following diagnosis in Scotland, all healthcare workers who had worked in Sierra Leone as part of the UK response. All three have made a full recovery. The case from Scotland had travelled by plane to England on the day prior to diagnosis. As a precaution PHE traced 244 other passengers from the flight and provided health monitoring information to them.

12 healthcare workers returned to England following high risk exposure, such as needlestick injuries, and received prophylactic treatment. These people were placed on an extended monitoring programme to account for a possibly extended incubation period - none developed Ebola.

Engaging stakeholders in Ebola preparedness: experiences of the Netherlands

Aura Timen

A Timen
Centre for Communicable Disease Control (CIb), RIVM, Bilthoven, The Netherlands
EUPHA-IDC section
Contact: aura.timen@rivm.nl

Ebola has led to a comprehensive effort to re-shape crisis preparedness and response in the Netherlands, by engaging all public and private organizations involved in patient care, disaster management, contingency planning, transportation, but also safety management, waste disposal and burial of infected corpses. The main goal was to optimize and increase flexibility and sustainability of the infrastructure for early recognition of cases and crisis management.

As more than 90% of the healthcare system belongs to the private sector, joint guidelines, simulations exercises and audits were developed under the coordination of the Centre for Communicable Disease Control of the RIVM. Public health services translated the national guidelines into regional agreements in collaboration with GPs, ambulance services and hospitals in their catchment areas. We used a stepwise approach to achieve optimal preparedness of hospitals and training of the staff. All hospitals were trained for the first assessment of a suspected case and further referral to dedicated hospitals for diagnosis and medical care of Ebola patients. University hospitals trained staff and reserved isolation capacity for long term specialized care and follow-up of confirmed cases. All hospitals and GPs used the national algorithm which required centralized case assessment of suspected patients by an expert group. Between April 2014 and May 2015, 67 patients were reported for further assessment, and 6 patients were tested for Ebola. None was found positive. In addition two medically evacuated health care workers from Sierra Leone with high risk of exposure were tested and monitored for symptoms. In December a confirmed patient with Ebola was evacuated to the Netherlands upon request from the UN. The patient was cared for in strict isolation in a dedicated hospital and recovered completely. Furthermore, we implemented programs for the monitoring of returning healthcare workers from affected areas.

Lessons learned from Ebola as guide posts for further preparation

William A Walters

WA Walters
Office of Medical Services/Operational Medicine U.S. Department of State, USA
Contact: WaltersWA2@state.gov

While 2014 proved to be a transformational year for institutions of government faced with a health crisis, it is recognized that Ebola was not the first such crisis, and will not be the last. Drawing lessons learned, and relearned, as we emerge slowly from the Ebola crisis, the speaker will highlight several points that may serve as guide posts for future preparation. First, prepare for a time that is not your own. Contingency planning is the use of time to imagine 'what if', and to plan for an unlikely event. The more time you have the further away from the 'known' or 'expected' you can allow yourself to travel. It is the planning, not the plan, that matters Second, small teams make a big difference (and big teams make small, but important, differences). If you want to venture deep into controversial territory, do so with a team that is as big as it needs to be to cover all functions. There are no 'right' answers known in advance. Pick a direction and a team that is already headed in that direction. Third, you have what you have built when the event occurs. In any bureaucracy, following an unexpected event, there is a tendency to hold execution of a good plan while waiting for a perfect one. We learned last fall was that careful planning in the use of a single plane to support the entire international response allowed the world to respond while we (and others) moved to build additional capacity. Focus on adapting what you have, and avoid discounting the good for the perfect. Finally, the cost versus control continuum is important. For complete control of a resource, an organization must bear the complete cost. When dealing with the size and scope of global contingency planning, the cost quickly becomes unmanageable. Only through carefully negotiated agreements, where the financial and risk burden is shared proportionally amongst stakeholders, can you develop a system that will work, with enough resilience to overcome unavoidable subsystem shortfalls.

The European dimension in Ebola preparedness and response

Denis Coulombier

D Coulombier
European Centre for Disease Prevention and Control (ECDC), Stockholm, Sweden
Contact: denis.coulombier@ecdc.europa.eu

The Ebola outbreak in West Africa affected over 25,000 and killed over 10,000 in Liberia, Sierra Leone and Guinea, the most affected countries, and spread beyond West Africa to become a global public health crisis. The European Union (EU) mobilized all available political, financial and scientific resources from the start to help contain, control and treat Ebola. The EU was one of the main contributors to the outbreak response, exceeding 1.2 billion euros in emergency measures and long-term support. Europe was a major provider of Ebola treatment centres and laboratory capacity, through NGOs and with the support of member states, the EU and The European Commission's Humanitarian aid and Civil Protection department (ECHO). The EU has also provided emergency supplies and deployed experts to support field epidemiology activities, although this was hindered by the perceived risk for countries to send such expertise out at a time cases could be experienced in EU. Within the EU, preparedness was the main issue for coordinated activities. The risk of Ebola to the general public in the EU remained very low although cases in the USA and Spain changed the perspective of the risk, especially when caring for most severe cases in ICU, using invasive procedures. The European Commission and the Member states have been working on preparedness and coordination of risk management in close cooperation with of the ECDC and the WHO. The EU Health Security Committee (HSC) carried out activities on Member states' preparedness and established lists of available Ebola assets which could be shared, including high security laboratories, hospital capacity and medical evacuation equipment. The HSC also developed the procedures for organising Medical Evacuation of international health care workers suffering from Ebola to have treatment in Europe, provided information for travellers in all EU languages and reviewed procedures for airports and health authorities on handling possible Ebola cases.

3.K. Oral presentations: Reducing risk factors in cardiovascular disease

Modelling coronary artery disease incidence in Europe based on population risk factor prevalence

Irene Dégano

IR Dégano[1], I Subirana[1,2], V Bongard[3], M Pereira[4], C Meisinger[5], P Quinones[5], L Mastrogiovani[6], MC Jori[7], J Lekakis[8], I Notarangelo[9], P Sciatella[10], F Mataloni[10], G Prosperini[6], M Davoli[10], M Grau[1], M Sala[1], J Marrugat[1]
[1]Hospital del Mar Medical Research Institute (IMIM), Barcelona, Spain
[2]CIBER Epidemiology and Public Health, Madrid, Spain
[3]The Toulouse MONICA Project (AEPMCV), Toulouse University School of Medicine, Toulouse, France
[4]University of Porto Medical School and Institute of Public Health of the University of Porto (ISPUP), Porto, Portugal
[5]MONICA/KORA Myocardial Infarction Registry, Central Hospital Augsburg, Augsburg, Germany
[6]CINECA Consortium of Universities (CINECA), Rome, Italy
[7]Maria Cecilia Hospital, GVM care and Research - E.S. Health Science Foundation Onlus (ESREFO), Cotignola, Italy
[8]ATTIKON Hospital, University of Athens Medical School, Athens, Greece
[9]European Hospital and Healthcare Federation (HOPE)
[10]Dipartimento di Epidemiologia ASL RME (DEASL), Rome, Italy
Contact: iroman@imim.es

Background

Cardiovascular disease (CVD) is the main cause of mortality in Europe. To improve CVD prevention, prediction models for population interventions are needed. Within the EUROTRACS Project we developed a tool to predict coronary heart disease (CHD) incidence in 6 European regions based on the change in risk factor prevalence at the population level.

Methods

The predictive algorithm was based on the Framingham risk function, which estimates the excess risk in individuals aged 35–74 years, free of CVD, according to their prevalence of risk factors. The Framingham function was adapted to the following regions/countries: Girona (Spain), Toulouse (France), Augsburg (Germany), Lazio (Italy), Greece and Portugal, by incorporating the specific risk factor prevalence and CHD incidence. The demographic evolution of each region was also incorporated. We analysed 3 scenarios during 2005–2025: a 10% reduction of hypercholesterolemia, a 10% reduction of hypertension and a 10% reduction in smoking prevalence. It was assumed that the defined scenarios would occur linearly during the analysed period.

Results

In 2005, the lowest CHD incidence rate was recorded in Toulouse (205/100,000 in men and 42/100,000 in women), and the highest in Portugal (557/100,000 in men and 189/100,000 in women). In all regions, a 10% reduction of smoking prevalence would yield the maximum decrease in CHD incidence in men, while a 10% decrease in hypertension prevalence would yield the maximum decrease in CHD incidence in women ($p < 0.05$). With these interventions, the expected decrease in CHD incidence would be 5% in men and 2–5% in women depending on the region.

Conclusions

The developed tool can predict changes in CHD incidence based on the prevalence of cardiovascular risk factors and the demographic characteristics of the population. With this model we showed that the largest decline in CHD incidence would be obtained by reducing smoking prevalence in men and hypertension prevalence in women.

Key messages

- We have developed a tool which can be used to test public health interventions to reduce CHD incidence in specific European regions
- Our results show that population interventions to reduce cardiovascular risk factor prevalence could be effective in reducing CHD incidence

Education remains the strongest determinant of cardiovascular health in the Czech population

Michala Lustigova

M Lustigova[1,2], D Dzurova[1], H Pikhart[3], R Kubinova[2]
[1]Faculty of Science, Charles University in Prague, the Czech Republic
[2]National Institute of Public Health, Prague, the Czech Republic
[3]University College London, UK
Contact: michala.lustigova@natur.cuni.cz

Background

In late 1980s, the Czech Republic was among countries with the highest cardiovascular (CVD) mortality in the world. In spite of enormous improvements since that time, there are still large opportunities to further improve cardiovascular health of the population.

Methods

The multi-centre study HAPIEE (Health, Alcohol and Psychosocial factors In Eastern Europe) examined random population samples aged 45–69 (at baseline) selected in Russia, Poland, Lithuania and the Czech Republic. The Czech HAPIEE sample ($n = 8855$ at baseline, 10 years of follow-up, 326 CVD deaths up to 2012) was used to investigate determinants of CVD mortality. The impact of education, smoking, high blood pressure, high blood cholesterol level, diabetes, obesity, physical activity and binge drinking (model controlled for age, gender, partner) was evaluated by Cox regression, and population attributable fraction were used to quantify the impact of these factors in the population.

Results

The prevalence of modifiable risk factors was high; the presence of three or more CVD risk factors were found in 40 % males and 30 % females, and 55% of participants fulfilled the criteria of metabolic syndrome. Education was found to be the strongest determinant of population's CVD mortality ($HR = 2.92$ (basic vs. university), p-value<0.001; $PAF\% = 47.7$). From major risk factors, the impacts of smoking ($PAF\% = 20.6$), high blood pressure ($PAF\% = 27.9$) and physical inactivity ($PAF\% = 19.4$) were confirmed. Conversely, the effects of obesity, binge drinking and high total cholesterol were not significant.

Conclusions

Education had the largest impact on cardiovascular mortality in the Czech population. Almost 50% of CVD death could be prevented if the whole population had the same risk as the highest educated population.

Key message

- Socio-economic factors are powerful determinants of health. This was confirmed also for cardiovascular health in the Czech population

Mapping collaborative relations among Canada's chronic disease prevention organizations

Damien Contandriopoulos

D Contandriopoulos[1,2], N Hanusaik[3], K Maximova[4], G Paradis[5,7], JL O'Loughlin[3,6,7]
[1]Faculté des sciences infirmières, Université de Montréal, Montréal, Québec, Canada
[2]Institut de Recherche en Santé Publique de l'Université de Montréal (IRPSUM), Montréal, Québec, Canada
[3]Centre de recherche du Centre hospitalier de l'Université de Montréal (CRCHUM), Montréal, Québec, Canada
[4]School of Public Health, University of Alberta, Edmonton, Alberta, Canada
[5]Department of Epidemiology, Biostatistics and Occupational Health, McGill University, Montreal, Quebec, Canada
[6]Département de médecine sociale et préventive, Université de Montréal, Montréal, Québec, Canada
[7]Institut national de santé publique du Québec (INSPQ), Montréal, Québec, Canada
Contact: damien.contandriopoulos@umontreal.ca

Objectives

There is converging evidence from the fields of sociology, organizational science and management that organizations gain an advantage from being embedded in a dense network of collaborative relations. We used network analysis to map the collaborations between organizations with a chronic disease prevention mandate in Canada.

Approach

The data for this analysis were collected as part of the 2010 Public Health Organizational Capacity Study (PHORCAST) census. PHORCAST is a repeat census of all public health organizations engaged in primary chronic disease prevention (CDP) at the regional, provincial, territorial and national levels in Canada. Respondent organizations (n = 207) were asked to use a name generator approach to list organizations with which they had collaborations, resulting in the identification of 1,322 organizations linked through 2,815 collaborative relations. Optimized sociograms of the resulting collaborative network were produced using structural network analysis (Cytoscape 3.1.0 software).

Results

Of the 1,322 organizations identified, 1,038 (78%) are interconnected in one single component which spans all provinces and territories. We computed degree and betweenness centrality for all organizations comprising this main component and analyzed mean provincial scores. The results show that CDP organizations' density and interconnectedness are much higher in Manitoba, Saskatchewan and the Maritime provinces. Interconnectedness was weakest in British Columbia and Alberta. We also used two complementary sociogram optimization algorithms to map out the structure of the CDP network. Visual analysis of optimized sociograms suggests that CDP organizations in Saskatchewan and those with a federal or multi-province mandate are structurally different from the Canadian average.

Conclusion

In this study we identified clusters of organizations that have either a central position or a bridging function in the network of collaborative relations. These results may provide important clues about the link between provincial organizational capacity for chronic disease prevention and population health outcomes.

Key messages

- Public health capacity should not be conceived as the sum of discrete organization's capacities but as a complex ecology of organizations whose influence is shaped by the way they are interconnected
- The method we developped allows to draw an actual map of organizational collaborations in the field of public health interventions at the national level

Tracking pacemaker and implantable cardioverter defibrillator utilization rates in Europe 2008–2012

Helen Banks

H Banks[1], G Fattore[2,3], A Torbica[2], C Valzania[1,4], G Boriani[1,4], T Hunger[5], Y Varabyova[6], V Prevolnik Rupel[7], R Slabe-Erker[7], M Arvandi[5], G Jhuti[8], for the MedtecHTA group

[1] European Society of Cardiology/European Heart Rhythm Association
[2] CeRGAS, Research Centre on Health and Social Care Management, Bocconi University, Milan, Italy
[3] Department of Policy Analysis and Public Management, Bocconi University, Milan, Italy
[4] S.Orsola-Malpighi Hospital, Bologna, Italy
[5] The University for Health Sciences, Medical Informatics and Technology, Hall in Tyrol, Austria
[6] Hamburg Center for Health Economics, Hamburg, Germany
[7] Institute for Economic Research, Ljubljana, Slovenia
[8] Centre for Health Economics, University of York, York, England
Contact: helen.banks@unibocconi.it

Objectives

To develop a common methodology to track temporal/geographic variations in pacemaker (PM) and implantable cardioverter defibrillator (ICD) implants (IM) and replacements (RP) using hospital discharge (HD) administrative data from five EU countries and to assess its appropriateness for Health Technology Assessment and policy making.

Methods

HD databases from 2008–2012 in Austria (AUT), England (ENG), Germany (GER), Italy (IT) and Slovenia (SI) were interrogated and data regarding all admissions for PM and ICD IM and RP were extracted using direct cross-referencing of procedure codes from each country's coding system. Device types were single chamber, dual chamber, biventricular or cardiac resuscitation therapy (CRT) or unspecified. Crude utilization rates per 100,000 inhabitants (UR) were calculated using census data, demographic and patient management characteristics investigated. URs were standardized (age/sex) within and across countries.

Results

1,338,199 hospitalizations for PM/ICD procedures (2008-2012) revealed 274,000 mean procedures/year performed for a 204.5 million combined population, or crude URs of 135 for IM and RP of PMs and ICDs. Germany's URs were highest, followed by IT, AUT, ENG and SI. Crude URs for 2011 ranged from 30 to 96 for PM IM, 9 to 37 for ICD IM, 17 to 30 for PM RP and 1 to 10 for ICD RP. After adjusting, differences lessened between GER, IT, AUT, ENG but persisted between SI and others; regional differences within countries were marked. PM UR increases have levelled off but ICD URs continue rising, though not at rates predicted by added indications for ICD therapy in recent years. Between country differences were observed in care setting, discharge practices, length of stay.

Conclusions

Wide variation in URs for PM/ICD procedures across and within five EU countries is still evident. The common methodology used here shows HD data as a relatively inexpensive, viable alternative to registry data for medical device policy making.

Key messages

- Wide variation in utilization rates for pacemaker and implantable cardioverter defibrillator implants across and within EU countries (Austria, England Germany, Italy, Slovenia) is still evident
- The common methodology used here shows hospital discharge administrative data to be a relatively inexpensive, viable alternative to registry data for guiding medical device policy making

Generic versus brand-name drugs used in cardiovascular diseases: an updated meta-analysis

Lamberto Manzoli

L Manzoli[1,2], ME Flacco[1,2], S Boccia[3], E D'Andrea[4], N Panic[3], C Marzuillo[4], R Siliquini[5], W Ricciardi[3], P Villari[4], JP Ioannidis[6,7,8]

[1] Department of Medicine and Aging Sciences, University of Chieti, Chieti, Italy
[2] Regional Health Care Agency of Abruzzo, Pescara, Italy
[3] Institute of Public Health, Catholic University of Rome, Roma, Italy
[4] Department of Public Health and Infectious Diseases, Sapienza University of Rome, Roma, Italy
[5] Department of Public Health Sciences, University of Turin, Torino, Italy
[6] Stanford Prevention Research Center, Department of Medicine and Department of Health Research and Policy, Stanford University School of Medicine
[7] Department of Statistics, Stanford University School of Humanities and Sciences
[8] Meta-Research Innovation Center at Stanford (METRICS), Stanford, California, USA
Contact: lmanzoli@post.harvard.edu

Background

Besides bioequivalence, the crucial assumption of equal health benefits of generics and brand-name cardiovascular drugs is based upon a single meta-analyses, published in 2008, combining only efficacy outcomes, and basing its conclusions on antiplatelet agents, ACE inhibitors and statins upon 50, 23 and 71 subjects, respectively. Such a scarcity of randomized evidence is typically used to support periodic claims of a superior clinical effect of brand-name vs generic drugs.

We performed a meta-analysis to compare the efficacy and safety of generic versus brand-name cardiovascular drugs.

Methods

We searched electronic databases and ClinicalTrials.gov (up to 01.12.2014). We included only randomized trials reporting >=1 efficacy/safety outcome. We independently extracted and analyzed soft (including systolic blood pressure, LDL cholesterol, and others) and hard efficacy outcomes (including major cardiovascular adverse events and death), minor/moderate and serious adverse events.

Results

We included 74 RCTs; 53 reported >=1 efficacy outcome (overall sample 3051), 32 measured mild/moderate adverse events (n = 2407), and 52 evaluated serious adverse events (n = 2952). 12 RCTs assessed ACE inhibitors, 5 anticoagulants, 17 antiplatelet agents, 11 beta-blockers, 7 calcium channel blockers, 13 diuretics, 6 statins, 3 other drugs. For soft or hard efficacy outcomes, 100% of the trials showed non-significant differences between generic and brand-name drugs. The aggregate effect size was 0.01 (95%CI: −0.05; 0.08) for soft outcomes; −0.06 (95%CI: −0.71; 0.59) for hard outcomes. All but 2 trials showed non-significant differences in mild/moderate adverse events (aggregate effect size 0.07; 95%CI: −0.06; 0.20). Comparableresults were observed for serious adverse events and for each drug class and in each stratified meta-analysis.

Conclusions

This meta-analysis substantially strengthens the evidence for clinical equivalence between brand-name and generic cardiovascular drugs.

Key messages

- Generic and brand-name cardiovascular drugs have similar efficacy and safety
- Physicians should be reassured about prescribing generic cardiovascular drugs to patients, and health care organizations about endorsing their wider use

Do psychosocial job resources buffer the relation between physical work demands and coronary events?

Els Clays

E Clays[1], A Casini[2], K Van Herck[1], D De Bacquer[1], F Kittel[2], G De Backer[1], A Holtermann[3]

[1]Department of Public Health, Ghent University, Ghent, Belgium

[2]School of Public Health, Université Libre de Bruxelles, Brussels, Belgium

[3]National Research Centre for the Working Environment, Copenhagen, Denmark

Contact: els.clays@UGent.be

Introduction

Increasing evidence shows the detrimental impact of high physical work demands for cardiovascular health. Measures preventing premature cardiovascular morbidity and mortality among workers with high physical work demands are needed. The aim of this study was to investigate the buffering effects of psychosocial job resources in the relation between physical work demands and incidence of coronary events.

Methods

The study included 14,337 middle-aged men from the BELSTRESS cohort, who were free from coronary heart disease at baseline. The Job Content Questionnaire was used to assess psychosocial job resources and physical work demands. Classical coronary risk factors were measured by clinical examinations. The incidence of clinical coronary events was monitored during a mean follow-up time of 3.15 years. Cox proportional hazard regression modeling was used, adjusting for socio-demographic and classical coronary risk factors.

Results

Within this cohort, 87 new coronary events were registered. We observed a significant buffering effect for social support at work. Only among workers with low social support at work did high physical work demands significantly increase the risk for CHD incidence (fully adjusted HR 2.45; 95% CI = 1.12–5.35), while this harmful effect entirely disappeared in case of high level of workplace social support (fully adjusted HR 0.40; 95% CI = 0.09–1.70). Similar results were obtained for sub dimensions of social support from supervisors and co-workers. No interaction or buffering effect for job control was observed.

Conclusion

Social support at work, but not job control, showed a strong buffering effect in the relation between physical demands and coronary heart disease. The results of our study suggest that supportive relationships at work may be a useful resource for reducing the cardiovascular risk associated with physical work demands. Future studies are needed to confirm this finding, and to unravel the underlying mechanisms.

Key messages

- High physical work demands significantly increased the risk for coronary heart disease among workers with low social support at work, but not among workers with high social support at work
- These results suggest that supportive relationships in the work environment may be a useful resource for reducing the cardiovascular overload in workers performing physically strenuous tasks

3.L. Regular workshop: Diabetes and work disability - causes and consequences

Organised by: EUPHA Secyion of Social Security, Work and Health

Contact: kristina.alexanderson@ki.se

Chair: Kristina Alexanderson

The burden of diabetes ranks in the top 10 as measured by disability-adjusted life years (DALYs), and that burden is increasing, which makes diabetes a major public health issue. Type 2 diabetes is a common chronic condition among working-aged populations as its onset is typically in middle-age. In addition to individual burden of disease, diabetes also has a vast economic burden for example, due to healthcare costs and costs due to lost productivity.

Sickness absence and disability pension rates are higher among people with diabetes compared to those without although very little is known about the patterns and reasons of absence, or reasons and risk factors behind them. Diabetes itself is, however, a relatively uncommon diagnosis in sickness absence and disability pensions, which suggests that diabetes is often a secondary, contributing disease to other reasons for work disability although we are not aware of prior studies that have been published testing these hypotheses.

So far, there are very few studies linking diabetes and working life outcomes. The proposed workshop aims at consolidating the evidence in this field of research by presenting new, unique studies on not only the basic statistics about diabetes and work disability but also regarding the specific questions on the association between diabetes and work disability, such as risk factors for sickness absence and disability pensions when having diabetes as well as possible consequences of being sickness absent or on disability pension in this patient group. We will also have an international approach by presenting recent research from four European countries - Sweden, Finland, France, and the UK.

We conclude that research in different settings and countries is needed to get knowledge on associations between diabetes and work disability as well as on associations of work disability with premature death.

Four presentations of about 12 minutes each, then joint discussion

Key messages

- Diabetes is linked with work disability and premature death, and the effects are found even before the diagnosis. Comorbid depression increases work disability across different occupational cohorts
- Association between diabetes, work disability and premature death remains even after mutually considering sociodemographic and socioeconomic covariates, and time dependent health conditions

Psychosocial factors and work disability in people with diabetes: pooled analysis of three cohorts

Jenni Ervasti

J Ervasti[1], *M Kivimäki*[2,3], *R Dray-Spira*[4,5], *J Head*[2], *M Zins*[6,7], *J Pentti*[1], *M Jokela*[8], *J Vahtera*[1,9], *M Goldberg*[6,7], *M Virtanen*[1]
[1]Finnish Institute of Occupational Health, Helsinki, Finland
[2]Department of Epidemiology and Public Health, University College London, UK
[3]Department of Public Health, Hjelt Institute, University of Helsinki, Finland
[4]INSERM, UMR_S 1136, Pierre Louis Institute of Epidemiology and Public Health, Department of Social Epidemiology, Paris, France
[5]Sorbonne Universités, UPMC Univ Paris, Pierre Louis Institute of Epidemiology and Public Health Department of Social Epidemiology, Paris, France
[6]Population-based Cohorts Unit, Inserm UMS 011, Villejuif, France
[7]University Versailles Saint Quentin en Yvelines, France
[8]Institute of Behavioral Sciences, University of Helsinki, Helsinki, Finland
[9]University of Turku and Turku University Hospital, Turku, Finland
Contact: Jenni.Ervasti@ttl.fi

Psychosocial factors both in private life and at work may influence clinical and social outcomes of diabetes. These factors are hypothesized to affect the course of diabetes by activating stress-related hormonal pathways, which interfere with glucose metabolism, and by changing lifestyle patterns and treatment adherence. However, empirical evidence remains scarce. We examined the extent to which adverse psychosocial factors, such as living alone, psychological distress, job strain and low support from supervisor, increase the risk of work disability (sickness absence and disability pension) among employees with diabetes.

Methods

In this pooled analysis of individual-participant data from three occupational cohort studies (the Finnish Public Sector (FPS) Study, the British Whitehall II Study, and the French GAZEL Study), 1088 women and 949 men with diabetes were followed up for the duration (number of days) and frequency (number of spells) of work disability during a mean follow-up for 3–5 years. Psychosocial and potential confounding factors were assessed at baseline using survey data. Study-specific estimates were pooled using fixed-effects meta-analysis.

Results

In analysis adjusted for socio-demographic factors, health behaviors and comorbidity, participants with psychological distress had longer (rate ratio [RR] = 1.66; 95% confidence interval 1.31-2.09) and more frequent absences (RR = 1.33;1.19-1.49) compared to those with no psychological distress. Job strain was associated with slightly increased absence frequency (RR = 1.19; 1.05-1.35) but not with duration. Living alone and low supervisor support were not associated with absence duration or frequency. We observed no sex differences in these associations.

Conclusions

Comorbid depression is highly prevalent among people with diabetes. Further research is needed to determine whether decreasing psychological distress might help in social and economic burden associated with diabetes.

Work disability in diabetes: identifying latent classes of risk factors in 3 prospective cohort studies

Jenni Ervasti

J Ervasti[1], *J Vahtera*[1], *J Head*[2], *R Dray-Spira*[4,5], *A Okuloff*[1], *A Tabak*[3,6], *M Goldberg*[6,7], *M Jokela*[8,9], *A Singh-Manoux*[3,10], *J Pentti*[1], *M Zins*[6,7], *M Kivimäki*[2,3], *M Virtanen*[1]
[1]Finnish Institute of Occupational Health, Helsinki, Turku and Tampere, Finland
[2]Department of Public Health, University of Turku and Turku University Hospital, Turku, Finland
[3]Department of Epidemiology and Public Health, University College London, UK
[4]INSERM, UMR_S 1136, Pierre Louis Institute of Epidemiology and Public Health, Department of Social Epidemiology, Paris, France
[5]Sorbonne Universités, UPMC Univ Paris 06, UMR_S 1136, Pierre Louis Institute of Epidemiology and Public Health, Department of Social Epidemiology, Paris, France
[6]1st Department of Medicine, Faculty of Medicine, Semmelweis University, Budapest, Hungary
[7]Population-based Cohorts Unit, Inserm UMS 011, Villejuif, France
[8]University Versailles Saint Quentin en Yvelines, France
[9]Institute of Behavioral Sciences, University of Helsinki, Finland
[10]Inserm U1018, Centre for Research in Epidemiology and Population Health, Villejuif, France
[11]Department of Public Health, Faculty of Medicine, University of Helsinki, Finland
Contact: Jenni.Ervasti@ttl.fi

Regarding work disability, diabetes has been considered as a homogeneous disease. Aim: identify subgroups among persons with diabetes based on potential risk factors for work disability. Previous studies compared people with diabetes to those without diabetes. However, well-known risk factors of work disability; comorbid chronic diseases, obesity, physical inactivity, smoking, and high alcohol use may cause heterogeneity in the risk of work disability among people with diabetes.

Methods

A total of 2445 employees with diabetes from three prospective cohorts (the Finnish Public Sector study, the GAZEL study, and the Whitehall II study) were followed up for 4 years regarding sickness absence and disability pension. Study-specific latent class analysis (LCA) was used to identify subgroups, based on survey data on prevalent comorbid disease and health-risk behaviours at baseline. Study-specific associations with work disability at follow-up were assessed using meta-analysis.

Results

A two-class solution was supported in each cohort for both men and women: one subgroup (n = 1184; 48%) having high prevalence of chronic diseases, obesity, physical inactivity and abstinence from alcohol, and the other subgroup (n = 1261; 52%) low prevalence of these factors. Meta-analyses adjusted for demographic characteristics showed that participants in the high-risk group had more work disability days (pooled rate ratio = 1.74; 95% CI 1.46-2.07) and a greater rate of work disability episodes (pooled rate ratio = 1.30; 1.18-1.43). These associations were similar in men and women, younger and older participants, and in socioeconomic status groups.

Conclusions

With regard to work disability, diabetes is not a homogeneous disease. There seems to be two subgroups; one characterised by clustering of comorbid chronic disease, obesity, physical inactivity, abstinence of alcohol, and associated high risk of work disability. The clustering of these risks concerned half of the population with diabetes.

Work disability before & after diabetes diagnosis: A population-based Swedish register study

Petter Tinghög

P Tinghög[1], *T Lallukka*[2], *J Ervasti*[2], *E Mittendorfer-Rutz*[1], *J Pentti*[2], *M Virtanen*[2], *K Alexanderson*[1]
[1]Karolinska Institutet, Department of Clinical Neuroscience, Division of Insurance Medicine, Stockholm, Sweden
[2]Finnish Institute of Occupational Health, Helsinki, Finland
Contact: petter.tinghog@ki.se

The burden of diabetes ranks in the top 10 as measured by disability-adjusted life-years. In addition to individual burden, diabetes has a vast societal and economic significance.

Moreover, although people have been shown to be heterogeneous in terms of disease prognosis, only a few previous studies have focused on such differences and on possible high-risk subgroups. To address the gaps in previous research, we evaluated the risk of work disability (sick leave and disability pension) before and after diabetes diagnosis relative to individuals without diabetes during the same time period, as well as the trajectory of work disability around the diagnosis.

Methods

This Swedish population-based cohort study with register data included 14 428 individuals with incident diabetes in 2006 and 39 702 individuals without diabetes during an observation window of 7 years (2003-2009) around the diabetes diagnosis. To examine the risk of work disability and the trajectories of work disability, we applied a repeated-measures Poisson regression analysis using the generalized estimating equations method with exchangeable correlation structure.

Results

Work disability was substantially higher among people with diabetes (overall mean = 95 days per year over the 7 years, SD = 143) than among those without diabetes (mean = 35 days, SD = 95). The risk of work disability was slightly higher after diabetes diagnosis than before and compared with the risk of those without diabetes. The trajectory of work disability was already increasing before diagnosis, increased even more at the time of diagnosis, and leveled off after diagnosis. Individual sociodemographic characteristics and comorbid conditions contributed both to the risk and to the trajectory of work disability.

Conclusions

Although diabetes has an independent effect on work disability, gender, age, education, and comorbid conditions play a significant role.

Work disability and premature death among Swedes with and without diabetes: a population-based study

Thea Lallukka

T Lallukka[1], J Ervasti[1], E Mittendorfer-Rutz[2], P Tinghög[2], L Kjeldgård[2], J Pentti[1], M Virtanen[1], K Alexanderson[2]
[1]Finnish Institute of Occupational Health, Helsinki, Finland
[2]Karolinska Institutet, Department of Clinical Neuroscience, Division of Insurance Medicine, Stockholm, Sweden
Contact: Tea.Lallukka@ttl.fi

There is strong evidence on the association between diabetes and mortality. However, work disability (sick leave and disability pension) among people with diabetes and subsequent premature death has not been examined. Our aim was to examine how work disability predicts death among those with incident diabetes as compared to in the general population without diabetes.

Methods

We used prospective population-based cohort data of those working aged and living in Sweden 2005. All with diabetes diagnoses in 2006 were included from national registers (n = 14266). A 2% random sample (n = 78598) was drawn from the general population, comprising 25–60 year olds who had no indication of diabetes during the study period 2005–2010. Net days of sickness absence or disability pension in 2005-2006 were divided into four groups among those with and without diabetes. The follow-up began at 1.1.2007 and ended at death, emigration, or 31.12.2010, whichever occurred first. Cox regression analysis was used, adjusting for sex, age, socioeconomic position, family situation, living area, country of birth, and time dependent health conditions 2007–2010 (hazard ratios (HR) and 95% confidence intervals (CI)).

Results

Work disability was associated with premature death among those with and without diabetes, but the associations were stronger among those with diabetes and work disability more than 25% of the time (HR 14.2, 95% CI 12.0-16.8), as among those without diabetes and the same net days of work disability (HR 6.4, 95% CI 5.4-7.6). P-value for the interaction (diabetes*work disability) was 0.0011. Moreover, those with diabetes diagnosis had a higher mortality even if they had no work disability. The associations were notably attenuated but remained after including time dependent health conditions.

Conclusions

Work disability is associated with subsequent premature death among those with and without diabetes, but diabetes is associated with death even without work disability.

3.M. Regular workshop: Research Methods in Public Mental Health

Organised by: EUPHA Section on Public Mental Health
Contact: jutta.lindert@hs-emden-leer.de

Chair: Jutta Lindert

Research in Public Mental Health faces several challenges such as (1) measurement of mental disorders and mental health, (2) topic specific study design, (3) participation needs and (4) need for longitudinal designs. Measurement of mental disorders and mental has come again under discussion after the recent release of the fifth edition of the DSM with some defending the status quo of measurement and others criticizing it. Critics are well established. They include an inability to capture the dimensional nature of many disorders, a reliance on combining heterogeneous symptoms or presentations, and a high rate of symptom overlap that may result in patients being diagnosed with multiple disorders simultaneously. The Research Domain Criteria (RDoC), a proposed dimensional model of psychopathology, may offer new insights into psychopathology and Public Mental Health.

The goal of this workshop is to contribute to building multidisciplinary capacity for developing and executing research in Public Mental Health and to contribute to research based prevention and intervention efforts.

1. The first presentation will discuss the limitations of the DSM nosology for capturing dimensionality and overlap on syndromes and will introduce a modified Rdoc framework for research in Public Mental Health;

Next, three examples of research approaches are presented:

2. one presentaion proposes models of screening and monitoring bipolar disorders;
3. one presenation describes including end-users in Public Mental Health research and finally
4. the last presention describes a longitudinal - multigenerational approach of research.

Presentations are followed by a discussion between speakers and the audience to work on an agenda how to set up a task force on research in the field of Public Mental Health.

Key messages

- We need more and better research in Public Mental Health and in neuropsychiatric epidemiology
- The new approaches in measurment of psychiatric disorders are promising to produce more effective interventions for substantially influencing Public Mental Health

Measurment of psychiatric disorders: The Rdoc approach

Jutta Lindert

J Lindert
University of Emden, Emden, Germany; Brandeis University, Waltham, United States
Contact: mail@jlindert.de

Over the past several decades, an increasingly comprehensive body of research in neuroscience, and behavioral science has transformed our understanding of how the brain produces adaptive behavior, and the ways in which normal functioning becomes disrupted in various forms of mental disorders. Currently, research and diagnosis in mental disorders is based on clinical observation and patients' phenomenological symptom reports. This system, implemented with the innovative Diagnostic and Statistical Manual-III (DSM-III) in 1980 and refined in the current DSM-V, has served well to improve diagnostic reliability in both clinical practice and research. The diagnostic categories represented in the DSM-V and the International Classification of Diseases-10 (ICD-10) remain the contemporary consensus standard for how mental disorders are diagnosed and treated, and are formally implemented in insurance billing. However, the current diagnostic systems are not informed by recent breakthroughs in neuroscience. The purpose of this talk is to describe the Research Domain Criteria Project (RDoC) in order to acquaint the Public Health experts with its nature and direction, and to facilitate commentary from Public Health experts. In a narrative review the main innovations of the RDoc approach will be described such as: 1.) Rdoc conceives mental disorders as dimension system spanning the range from normal to abnormal; 2.) it is agnostic about current disorder categories, and 3.) uses several different units of analysis in defining constructs for study (e.g., behavior, and self-reports of symptoms). RDoC, might be a useful research framework guide classification of patients for research studies, not as an immediately useful clinical tool. It will be discussed how creating such a framework that interfaces directly with neuroscience, and behavioral science, will contribute to advances in research in neuropsychiatric epidemiology and facilitate new interventions and treatments.

Screening for bipolar disorders is a Public Health issue

Mauro Giovanni Carta

MG Carta
Department of Public Health, Clinical and Molecular Medicine, University of Cagliari, Italy
Contact: mgcarta@tiscali.it

Introduction

Monitoring Bipolar Disorder (BD) represents a public health challenge as it is a leading cause of disability and late diagnosis is worsening the disorders impact. Monitoring and development of reliabel and valid screening tools are necessary.

Methods

Narrative review of assessment measures to minitor and early recognize BD.

Results

Screening measures to day have shown low accuracy: the excess of false positives would make such tools unnecessary for case finding and little useful in screening studies of two phases. However 'positives' at screening were frequently homogeneous with BD according to: gender, age, level of distress, low social functioning and employment rate, comorbidity, substance abuse, high recourse to health care and use of stabilizers and antidepressants, risk of suicide attempts, and high recurrence of depressive episodes. If none of these components is 'pathognomonic' of BD, the co-occurrence could identify subthreshold 'cases'. Studies found positivity at screening is associated to impaired quality of life even in the absence of BD, independently of comorbidity. In patients with neurological diseases the positivity was found to be associated with homogenous brain lesions and different than those of people without mood disorders or with major depression negative at the screening. First data on tools on dysregulation of biological rhythms and on interview of a key informant show encouraging results.

Conclusions

The result are coherent with the hypothesis that positivity identifies a bipolar spectrum of clinical and public health interest even including subthreshold cases, and it does not fulfill the diagnostic criteria for BD. This matches the Rdoc approach which strengthens dimensionality of mental disorders. We propose monitoring populations mental health using hybrid approaches to assess affective states (mania/dysregulation) and multi-informant measures.

Community-Based Participatory Action Research in Mental Health: A Special Focus on Photovoice

Ozge Carta

O Camar
Hacettepe University, Institute of Public Health, Ankara, Turkey
Contact: ozgecaman@hacettepe.edu.tr

Background

Community-Based Participatory Action Research (CBPAR) has been recognized as an approach to conduct research with - rather than on- communities. This presentation, under the overall theme of 'Methods in Public Mental Health Research' aims to contribute to the proposed workshop by presenting CBPAR approach in public mental health research with special emphasis on 'Photo-voice' methodology.

Methods

The presentation provides an overview of CBPAR approach and a more detailed description of the photo-voice methodology, in addition to several examples of photo-voice menta l health studies from around the world.

Results

CBPAR is a collaborative research approach that involves all partners (community groups, policymakers/decision makers, and researchers) in the research process in an equitable way. CBPAR aims to combine knowledge with action, advocate and achieve social change to improve public health and to decrease inequalities. Photo-voice, as a CBPAR methodology, is a process by which people can identify, represent, and enhance their community through a specific photographic technique. Photo-voice enables people to record and reflect their experiences through group discussion of photographs, and to reach policymakers for changing policies and programs. This methodology has especially been used to empower vulnerable/disadvantaged groups, including people with mental problems. Scientific literature as well as non-scientific community-based photovoice projects shows that photo-voice can be a powerful research, advocacy, and empowerment tool in the field of public mental health.

Conclusions

CBPAR approach and photo-voice, as one of the participatory action research methodologies, can be used more widely in public mental health research, especially among vulnerable/disadvantaged groups with respect to mental health.

A family life course approach based on a three-wave birth-panel data Associations between life events and children's health born during the Hungarian Transition (1989-1990)

Beata David

B David, V Bóné
Institute of Mental Health, Semmelweis University, Budapest, Hungary
Contact: pet5639@ella.hu

Background

Mental Health of adults in transition countries are in the focus of scientists and policy makers in Europe. 25 years after the political and economical transition in Hungary many questions are still unanswered about transition health effects on the two generations mostly affected: the currently middle aged people and their children born around the 1990-s. We aim to investigate relationship between family life events and mental health of the generation born around the transition period in Hungary.

Methods

The birth-panel study initiated in 1989 is a longitudinal survey with nested qualitative interviews in the agglomeration of Budapest, Hungary. In the first phase of the study, 300 pregnant women were asked to fill out standardized questionnaires. In the second phase, the families were revisited 3–13 months after giving birth. Then, altogether 193 families (both mothers and fathers) were assessed. In 2011 the 3rd wave started. We assessed positive and negative life events (e.g., residence, employment, education, personal success, illness and loss) physical and the mental health (e.g., drug and alcohol consumption, health status, social networks and social support, satisfaction with life and future plans).

Results

Preliminary results suggest that family planning and decision making strategies of the children surveyed are significantly influenced by factors such as being a 'planned' child and being successful in the studies. The longitudinal approach of our research allows causality models to investigate effects of family life events on mental health. Conclusion: Further data will be presented in the talk as analyses are still ongoing.

3.N. Regular workshop: Finding and Implementing 'Best' Child Primary Health Care - Key Themes in the new MOCHA Project

Organised by: Child and Adolescnet Public Health Section
Contact: m.j.rigby@keele.ac.uk; m.rigby@imperial.ac.uk

Chair: Dr. Danielle Jansen

Patterns of provision of primary health care for children vary across Europe, with two principal models - paediatrician based and generalist based being radically different. Both are considered 'best' by their advocates, but empirical evidence is weak at the population level. Additionally, preventive services, school health services, adolescent and other direct access services, and cross-sectoral services for children with complex needs have important parts to play, but again there are many patterns. By definition, if there are differences in outcome it means that many children in Europe are receiving sub-optimal primary care, with adverse implications for their current health and the Health of the future European population.

The Models of Child Health Appraised project is a new Horizon 2020 project, commencing start-up preparations in June 2015 and due to be launched in the European Parliament on 21 October 2015. It will comprise a scientific programme run by academic partners, fed by factual evidence from country agents in 30 European countries.

Themes to be covered over 3 years include:

- Analytic description of principal models of child primary health in Europe
- Emergency care
- Complex care across the primary/secondary care divide; interfaces with social care
- School health services
- Adolescent health services
- Quality and outcome measures
- Economic analysis
- Professional skill sets
- Ensuring equity
- Use of electronic records, and large data sets, in child health

This workshop will be a first chance for interested child health practitioners to interact with the project, and constructively discuss some of the key enquiry lines of the project. Presenters and topics for discussion are:

Mitch Blair (Project Leader) - What we Know and Don't Know about 'Best'
Daniela Luzi - Measurement of Quality
Auke Wiegersma - Services for Adolescents - Child Preventive Health Care (CPHC) and 'Medical Nemesis'
Michael Rigby (Deputy Project Leader) - Electronic Health Records in Child Health - the need to regain firm ground
Peter Schröder-Bäck - How Providers set Policy

Discussion will enable conference members to register their ideas for concepts and analytic approaches at a formative stage of the project.

Key messages

- Child health services need to be optimal, and this means identification of the best core models, and specific services, based on outcome and quality data
- Effective study across the variety of Europe requires many systematic approaches, and can benefit from the 'natural laboratory' of Europe

What we Know and Don't Know about 'Best'

Mitch Blair

M Blair
Section of Paediatrics, Imperial College London, UK
Contact: m.blair@imperial.ac.uk

We know that a number of different models of primary health care delivery for children exist across the many countries of Europe. The origins and development of these have been driven by many different historical, political and economic factors. Broadly there are primary care paediatrician and family or general practice models. Alongside there is also great variation in other complimentary services, such as school health services and direct access services for adolescents.

We start from the knowledge that Europe has unacceptable variations in different child health care outcomes e.g. mortality rates for ambulatory sensitive conditions such as asthma, cancer diagnoses rates, screening and immunisation uptake etc.. Although GP systems have been in the ascendancy in the last two decades, we do not know which particular systems and structures provides the best service quality and outcomes for children and young people. Belief, and in some cases political values, hold as much sway as proof - but this is no way to run a health system in a modern world of evidence-based medicine. Thus we have a unique opportunity to examine these systems in more detail across countries and between different regions. This section will describe some of the factors and potential explanatory frameworks contributing to this inequality of outcome, and highlight the gaps in our knowledge base which the MOCHA project seeks to explore over the next three years.

The Measurement of Quality

Daniela Luzi

D Luzi, F Pecoraro
National Research Council, Institute for Research on Population and Social Policies, Rome, Italy
Contact: d.luzi@irpps.cnr.it

One of the main objectives of the MOCHA project is to assess the quality of paediatric primary care including its interaction with secondary as well as social service provision. To achieve this aim it is necessary to identify complex and multidimensional relationships between structural assets, organizational characteristics and clinical procedures adopted in EU countries. This analysis will be based on following steps:

- Analysis of requirements for measurements of the quality and outcomes at macro, meso and micro levels based on scenarios and uses cases agreed upon within the project;
- Identification of data sources and published statistical data as well as analysis of the increasingly available large data sets and registers both international and country-specific;
- Identification of other candidate locally developed data sources provided by country agents collaborating in the project;
- Application of a structural equation model (SEM) to identify latent variables inferred by the correlation between observed measured variables.

This will result in the development of new and innovative measures of quality and outcome to support the modelling of effective, affordable and sustainable child-centric provision. In particular, the results of this analysis will provide an overview of the challenges and opportunities encountered in establishing effective outcomes measurement systems for program evaluation. Moreover, it will elaborate recommendations for expanding and enhancing current paediatric primary care outcome measurement efforts to achieve three MOCHA primary goals:

- comprehensive service assessment,
- meaningful data collection and interpretation, and
- outcomes-driven program design and service provision.

Services for Adolescents - Child Preventive Health Care (CPHC) and 'Medical Nemesis'

Auke Wiegersma

P Wiegersma
Public Health, University Medical Centre Groningen, Groningen, The Netherlands
Contact: pawiegersma@gmail.com

In our society, problems among adolescents are extensively discussed and many measures are taken to try and reduce all kinds of negative influences that are sure to wreak immense damage to the vulnerable child, now and in the future. This attitude results in an increasing number of practices that are supposed to prevent this and increase the likelihood of the child growing up to be a mentally and physically healthy adult. School and adolescent health care are textbook examples of this approach. In The Netherlands for example, as in many other countries, more than 90% of the CPHC-activities are unproven and some studies even show a negative influence on all kinds of healthy behaviour. This effect is reminiscent of and more or less predicted in the famous book 'Medical Nemesis' of Ivan Illich*. In this book he warns of the many iatrogenic effects an overly concerned and (pro)active medical oriented society can have. Due to the uninhibited growth of medical interference with everyday life (see also Michael Fitzpatrick; The Tyranny of Health**), by now we are a 'healthy people living in fear'.

In MOCHA the daunting task will be to collect proven effective health measures throughout Europe and make an overview of what should sensibly be included in effective preventive child health care. In many cases this will result in a less bio-medical and more (psycho)social approach.

It is up to the policy makers of the various countries, backed by solid research, to convince the health care workers that less can certainly be more.

* Ivan Illich. Limits to Medicine: Medical Nemesis: The Expropriation of Health. Calder & Boyars, Ltd., London, 1975.

** Michael Fitzpatrick. The tyranny of health. Doctors and the regulation of lifestyle. Routledge, London, 2001.

Electronic Health Records in Child Health - the need to regain firm ground

Michael Rigby

M Rigby
Section of Paediatrics, Imperial College London, London, UK
Contact: m.rigby@imperial.ac.uk

The first electronic records in child health were introduced over 50 years ago*, and were shown to be cost-effective, but the initial advantage has been lost as informatics policies in many countries have come, been amended, and gone to be replaced by new e-health objectives. The specific and distinct needs of child health information, care delivery and health monitoring have not been well advocated with the increasing dominance of adult-focussed systems. More recently some countries have rediscovered the importance of child health systems, or child health data sets, but these new 'innovations' have largely been to reapply what was available one or two decades earlier.

The MOCHA project will study the current situation, and how best to use health informatics and structured data sets, in electronic record systems, telehealth, and register systems to promote good health care delivery. The first task will be to ascertain the current situation regarding Electronic Health Records (EHRs), and references to child health (or lack of) in future national e-health plans, and also the existence of any other key child health records such as neonate parent held records. Other initiatives, such as telemedicine and telehealth, will also be noted where in significant use. Mobile health, and the use of social media with regard to health issues, will need further study, as will the use of register systems.

It is a paradox that young people generally are IT-aware, but health computing systems are inadequately child-aware. This input will open up the lines of enquiry planned.

* Galloway TM. Management of Vaccination and Immunisation procedures by Electronic Computer; Medical Officer, 1963.

How Providers set Policy - Exploring Aspects of Governance and Transferability of Best Practice Exchange

Peter Schröder-Bäck

P Schröder-Bäck[1], T Clemens[1,2], K Zdunek[2], HB Brand[1]
[1]Department of International Health, Maastricht University, Maastricht, The Netherlands
[2]Public Health Department, Medical University of Lublin, Lublin, Poland
Contact: peter.schroder@maastrichtuniversity.nl

Background

To give policy advice on innovations in child health care systems and advocate for models of best practices, one needs to understand the factors that influence how evidence is used in decision making including among others the governance structures of child health care models in different European countries. This research will explore relevant factors on how providers set policy. This knowledge is needed for effective mutual learning and best practice exchange.

Methods

A literature review will explore what is known about governance, evidence-based decision making, the role of actors and the policy context (which reflects for example different cultural or structural perspectives) in child primary health care. Furthermore, the Greenhalgh et al. (2004) model on diffusion of innovations will be applied to the aspects that are particularly relevant for best practice implementation.

Results

Limited research exists over how providers set policy and what models to take in the context of (child) primary health care. Some insights have been reported e.g. in the field of integrated care. From the literature dealing with innovations in health care, aspects such as system readiness, cultural values and adopter needs and motivation seem essential to consider.

Discussion / conclusions

There is still insufficient knowledge about the governance of child primary health care in different countries. Yet, such knowledge is important to advocate evidence-based recommendations to make changes and innovate in the field of this study. Moreover, one also has to remain sensitive about aspects of transferability. Models of best practice might not be easily or effectively transferred to different cultures or different overall health systems. More research is needed for effective policy advice to policy makers and providers of child primary care.

3.O. Regular workshop: Health promotion in everyday settings. The Nordic way

Organised by: Center for Health Promotion Research, NTNU, Norway
Contact: geirae@svt.ntnu.no

Chairs: Geir Arild Espnes, Elisabeth Fosse

It is widely recognized that health promotion is a significant prerequisite to a sustainable society and an important complement to disease prevention. As suggested by the Ottawa charter effective health promotion should be conducted by utilizing a setting approach moving the target of the interventions from individuals or groups of individuals to their environments, the settings of everyday life (Kickbusch, 2003). A setting is therefore a meaningful way to look at and understand the living environments so that it can be made ready for implementation of health promotion action. The setting approach has been one of the most successful strategies in the implementation of health promotion and become a driving force in creating meaningful structures linking individuals and environments. A bigger challenge is linking the key settings into a coherent interactive entity. This workshop provides a system approach to the setting approach and discusses how the key stakeholders can implement an overall synergetic HiAP (Health in All Policies). One of the very underpinnings of health promotion ideology is user involvement. In this round table session the main objective is to show how health promotion thinking and action effectively can be applied in different settings. The session discusses the Nordic Model for public health and shows examples on health promotion research on settings like municipalities, school, work-life and health care.

Key messages

- The Nordic way of thinking health promotion is gaining acceptance, how is this shown in policy?
- The settings approach is an important approach in Health Promotion Practice. we will show three examples

Municipalities as settings for public health and health promotion

Elisabeth Fosse

E Fosse
Department of Health Promotion and Development, University of Bergen, Bergen, Norway
Contact: Elisabeth.Fosse@uib.no

The Nordic countries represent the social democratic welfare regime, as characterized by Esping-Andersen. This regime is characterized by its emphasis on solidarity and universalism, and the redistribution of resources among social groups, mainly through a progressive tax system and entitlements to vulnerable groups. This is a system of emancipation, not only from the market, but also from the family with direct transfers to families and children and, providing services that enable women with families to engage in paid work. Policies developed in other sectors than the health care sector play an important role for the health of the population. Policies to keep children and families out of poverty and ill-health seem to be: Labor market policies, cash benefits, childcare, access to education, participation in culture, sport and recreation, access to decent housing and safe neighborhoods, access to health care and access to social services. Municipalities have a dual role. On the one hand they are agents for the welfare state through their responsibility for implementing national policy goals. On the other hand, they form independent local democratic arenas that decide how to use national funding in accordance with local preferences and needs. Nordic municipalities have the overall responsibility for welfare provision, including services such as pre-schools, schools, child care, and care for the elderly, social support and services. Hence, municipalities are important settings when studying how public health and health promotion are being developed and implemented. Municipalities also constitute the context for studying other settings like schools, work places and institutions for elderly.

The School as a setting: Health promotion in schools

Unni Karin Moksnes

UK Moksnes
Center for Health Promotion Research, Sør Trøndelag University College, Trondheim, Norway
Contact: unni.karin.moksnes@hist.no

Schools are an important setting for implementing health promotion activities (HPA). Center for Health Promotion Research are developing mental HPA for implementation in secondary high schools in Norway together with school nurses. Mental HPA has often in Norway been to target risk populations like young with depressive thoughts. Our HPA-programs are universal program, targeting the whole student population, and aiming at strengthen the resistance resources by teaching the students how to reveal both resources within themselves, which they have available, and in their environment; peers, teachers, family etc. An important resource is to learn more about the variance within normality, to develop their mental health literacy. To learn that all young goes through phases of mental hardship, and that this is normality. The lecture will focus on the development and content of the mental HPA, the theoretical foundation - of and the implementation of the program.

The Workplace as a setting: Health Promotion in the Workplace

Siw Tone Innstrand

ST Innstrand[1]*, M Christensen*[2]
[1]Center of Health Promotion Research, Department of Social Work and Health Science, Norwegian University of Science and Technology (NTNU
[2]Department of Psychology, Norwegian University of Science and Technology (NTNU), Trondheim, Norway
Contact: siw.tone.innstrand@svt.ntnu.no

The workplace has been recognized by WHO, as ‘one of the priority settings for health promotion into the 21st century’ as it ‘directly influences the physical, mental, economic and social well-being of workers and in turn the health of their families, communities and society’. Thus, workplace health promotion is a pre-requisite for sustainable social and economic development (WHO). The European Network for Workplace Health Promotion has defined workplace health promotion as the combined efforts of employers, employees and society to improve the health and well-being of people at work. This vision of workplace health promotion places particular emphasis on improving the work organization and working environment, increasing workers' participation in shaping the working environment, and encouraging personal skills and professional development. This requires a comprehensive understanding on the motivational and health impairment processes involved and knowledge on the ongoing processes for improving work and health. Previous European research on occupational health has largely focused on the health impairment process involving risk factors like demands, stress, burnout and disorders. Less is known about the positive side of occupational health, including a focus on resources, well-being and motivation and how to implement health promoting interventions to enhance the health and wellbeing of employees

Health Care Services as a Setting for Health Promotion: Health promotion in palliative care

Beate Andre

B Andre[1]*, GI Ringdal*[2]
[1]Center for Health Promotion Research, Faculty of Nursing, Sør-Trøndelag University College, Trondheim, Norway
[2]Department of Psychology, Faculty of Social Sciences and Technology Management, NTNU, Trondheim, Norway
Contact: beate.andre@hist.no

Palliative care is active, holistic care and treatment for patients with incurable diseases and short expected time left to live. Relieving physical pain and other bothersome symptoms are central together with efforts against psychological, social, spiritual and existential problems. The aim of palliative care is to improve both the patients' and the close family members' quality of life and well-being. Although dying patients may have different needs and wants, there are some assumptions that characterize 'good care' for the dying, such as relief from emotional and physical problems, social support, continuity in care, and good communication both with the physicians and the nurses (Ringdal & André, 2014). Experience of death and dying may have serious consequences for the dying, and also for the family's grief work and health in the period after death. Factors that emphasize a health promotion perspective of palliative care patients and their families are important to implement in clinical practice. All approaches to patients and their families must be based on the individual and adjusted context and framework. The possibility of monitoring the bereaved after the death of their loved one is emphasized as an important health promotion intervention (André & Ringdal, 2015).

3.P. Oral presentations: Health care and patients

Validity of self-reported use of health care in the European Health Interview Survey

Johan van der Heyden

J Van der Heyden[1]*, D De Bacquer*[2]*, J Tafforeau*[1]*, R Charafeddine*[1]*, K Van Herck*[2]
[1]Unit Surveys, Lifestyle and Chronic Disease, Scientific Institute of Public Health, Brussels, Belgium
[2]Department of Public Health, Ghent University, Ghent, Belgium
Contact: johan.vanderheyden@wiv-isp.be

Background

The Health Care Module of the European Health Interview Survey (EHIS) is aimed to obtain comparable information on the use of inpatient and ambulatory care in all EU member states. The aim of this study was to assess the validity of self-reported information on the use of health care, collected according to the Eurostat guidelines, in the Belgian population.

Methods

Self-reported use of health care, based on EHIS questions, was compared with registered information on reimbursed health care through a linkage of data from the Belgian Health Interview Survey 2008 with data from the compulsory Belgian health insurance. Outcome indicators included the probability of a contact with a GP, specialist, dentist and a physiotherapist, as well as inpatient and day patient hospitalisation. The concordance between the two data sources was assessed by calculating the percentage of agreement and Cohen's kappa. Correlates of over and underreporting were investigated via a multinomial logistic regression.

Results

Compared to health insurance data, the survey results underestimated the percentage of people with a specialist contact in the past year (50.5% versus 65.0%) and a day patient hospitalisation (7.8% versus 13.0%). Inversely, survey results overestimated the percentage of people having visited a dentist in the past year: 58.3% versus 48.6%. The best concordance was obtained for an inpatient hospitalisation (kappa 0.75). The validity of self-reported use of health care varied by region. After adjustment for a range of covariates, overreporting a contact with a GP in the past year occurred significantly more often in Brussels (OR 1.93; 95% CI 1.37-2.73) and Wallonia (OR 1.55; 95% CI 1.14-2.11) than in Flanders.

Conclusion

The validity of self-reported use of health care, based on EHIS questions, varies by type of health service. Regional differences in the use of self-reported health care may be influenced by regional differences in the validity of the self-reported information.

Key messages

- Substantial differences may exist between self-reported and registered-based use of health care
- Cautiousness is needed to interpret regional differences in self-reported use of health care, as they may be related to cross-regional differences in validity

Primary healthcare use among people with disabilities: a structural equation modeling

Clémence Bussiere

C Bussière, Pelletier-Fleury
CESP, Team 1 - health economics and health services research unit (Inserm U1018), France
Contact: c.bussiere@live.fr

Background

The disparities in primary health care utilization are exacerbated in people with disabilities since disability is strongly correlated with disadvantages. Many factors are involved in the definition of disability, and, at the same time, simultaneously interact to inhibit access to health care. We aimed to assess disability through multiple indicators determining capabilities and examine the simultaneous impact of these capabilities on primary health care utilization.

Methods

We used Structural Equation Modeling, which appeared appropriate to assess capabilities, taking into account the simultaneous determinations as well as the impossibility of the direct measurement. The three latent variables modeled were: (1) the 'health conditions-related' capabilities, (2) the 'societal' capabilities, and (3) the 'socio-economic' capabilities. Estimations were carried out with Mplus Version 7.11 software.

From the Health and Disability Survey (2008), we selected individuals aged over 18 years (n = 18 468) for analysis of GP, nursing care and physiotherapist. Based on gender and/or age's recommendations, we selected sub-samples to conduct analysis of gynaecologist, Pap test, mammography and FOBT use (resp. n = 9875, n = 6339, n = 4304, n = 8181).

Results

The proposed model fitted reasonably well the data: RMSEA = 0.49 (90% CI: 0.49 to 0.51), CFI = 0.95, and TLI = 0.95. All factor loadings between each indicator and their latent factor were statistically significant ($p < .0001$). The general trend showed a decrease of the health care use likelihood as 'health condition-related' capabilities increase, and an increase of the likelihood as 'societal' capabilities or 'socio-economic' capabilities increase, all other things being equal.

Conclusions

From a multicausal point of view, disability was understood as a whole, where impairments and diseases interact with the social, economical and environmental elements to produce a profile of disadvantage. Our empirical results will provide useful insights for public policies toward the enhancement of the capabilities.

Key message

- Impairments and diseases interact with the environment to produce a profile of disadvantage. Results provide insights for public policies toward the enhancement of the capabilities

Measures taken by Dutch hospitals to prevent measles in healthcare personnel; a 2014 survey

Lydia Fievez

L Fievez, A Wong, H Ruijs, F Meerstadt, A Timen
National Institute for Public Health and the Environment, Bilthoven, The Netherlands
Contact: lydia.fievez@rivm.nl

Background

In The Netherlands a measles outbreak occurred in 2013–2014. During this outbreak over 2700 patients were reported, of which 181 children were hospitalized and one child died. Measles outbreaks as currently ongoing in Germany, Italy, Czech Republic and France.

This study examines which preventive measures, additional to hygiene and isolation measures, were taken by Dutch hospitals in order to prevent measles in healthcare personnel. By investigating which hospital characteristics and implementation issues are associated with adequate control policies, future guidelines regarding infection prevention in hospitals can be further improved.

Methods

Cross-sectional online survey among Dutch hospitals. Questions were asked about characteristics of the hospital and measures taken to prevent measles in healthcare personnel. All academic and community hospitals (88) and three specialized hospitals were invited to participate.

Analysis

Descriptive statistics were used to explore which preventive measures were taken. To investigate which hospital characteristics and implementation issues are related to whether or not preventive measures were taken sufficiently, a logistic regression model was used.

Results

71 (78%) of 91 hospitals completed the questionnaire. In 61 hospitals (86%) healthcare personnel susceptible for measles were offered vaccination. 43 hospitals (61%) had adequate post-exposure policies in place. Preliminaryresults of the logistic regression analysis suggest that hospitals which consist of a single settlements, more often had sufficient preventive measures in place compared to hospitals which consists of multiple settlements.

Conclusions

The majority of Dutch hospitals took additional measures to prevent measles in healthcare personnel during the measles outbreak in 2013–2014. We will reflect on factors that influence implementation of adequate prevention policies and draw lessons for improvement of pre- and postexposure policies, which are particularly relevant given the upsurge of measles in several European countries.

Key messages

- The majority of Dutch hospitals took additional measures to prevent measles in healthcare personnel during a national measles outbreak
- Development of future guidelines regarding infection prevention in hospitals can be improved by taking hospital characteristics into account

The short term evaluation of the autonomy of public hospitals, in a province of Turkey, 2011–2013

Sarp Üner

BC Metin[1], S Üner[2]
[1]Hacettepe University, Medical Faculty, Department of Public Health, Epidemiology Division, Ankara, Turkey
[2]Hacettepe University, Medical Faculty, Department of Public Health, Ankara, Turkey
Contact: sarpuner@yahoo.com

Background

One of the components of the Health Transformation Programme in Turkey was to provide administrative and financial autonomy to public hospitals. In this context, the implementation was started in 2012. The aim of this study was short term evaluation of this implementation, in a selected province of Turkey.

Methods

The numbers of hospitals in the selected province was 11 and the study data covered one year period before and after the transition. Data Envelopment Analysis method was used to analyze hospital efficiency. Pure technical efficiencies (PTEs) of hospitals were calculated in two models which were general efficiency model (GEM) and financial efficiency model (FEM). The hospital efficiency scores were benchmarked before and after the transition.

Results

While pre-transition mean physician number was 307.8 (21.2), it decreased to 304.2 (20.0) after transition. Mean pre and post-transition hospital bed numbers were 605.8 (17.3) and 698.1 (18.4) respectively. Pre-transition outpatient visit was 3016853 and inpatient day was 146501. These outcomes increased to 3516215 and 182407 respectively after transition. However the total cost and income of the hospitals increased after than before transition.

Post-transition financial PTE levels were found higher than the pre-transition levels. In the GEM, PTE levels were found similar before and after the transition. Hospitals relatively large-scale sized and located in districts with a higher urban population, were found less efficient in efficiency analysis.

Conclusions

In this study assessing the first year of the transition in a Turkish province, the expected increase in hospital efficiency was not observed, except financial efficency. The reforms in health care management may give different results in medium and long term. Therefore, in the future, it is recommended that similar studies should be conducted with the data including more time in duration before and after transition, and other provinces and/or regions.

Key messages

- The pure technical efficiciency scores after the transition, were found higher than before in financial efficiency model, but similar in general efficiency model
- Further researches should be planned to evaluate the internal and the external factors that may affect the efficiency of inefficient hospitals

Integrated care policies in the Nordic countries

Liina-Kaisa Tynkkynen

LK ynkkynen[1], A Saloranta[1], D Isaksson[2], H Rommetved[3], I Stigen[4], K Vrangbæk[5], I Keskimäki[1,6]
[1]School of Health Sciences, University of Tampere, Tampere, Finland
[2]University of Uppsala, Uppsala, Sweden
[3]IRIS - International Research Institute of Stavanger, Stavanger, Norway
[4]Oslo and Akershus University College of Applied Sciences, Oslo, Norway
[5]University of Copenhagen, Copenhagen, Denmark
[6]National Institute for Health and Welfare, Helsinki, Finland
Contact: liina-kaisa.tynkkynen@staff.uta.fi

Background

Service integration has been high on the health policy agenda in most European countries already for decades. Due to the population ageing and epidemiological transition the number of people experiencing chronic conditions is increasing. Many decentralized service systems have become even more fragmented because of medical specialization, novel financing schemes and diversity in the alternatives for service provision. These developments urge the need for better integration between different actors. This paper deals with policies promoting vertical and horizontal integrated care (IC) in the Nordic countries.

Methods

The proactive involvement of national governments and local and regional authorities is important in promoting IC development in practice. This study explored what kind of policy tools are used to promote IC in Denmark, Finland, Norway and Sweden. We focused on structural coordination in each country during the past 20 years. In particular we analyzed legislation, agreements and guidelines. After that we studied what kind of integration these policy initiatives seem to promote in terms of horizontal and vertical integration. The data consisted of published research, grey literature and policy documents.

Results

Our analysis suggests that the Nordic countries differ in terms of structural means to facilitate IC. While Norway has introduced more formal legislation Denmark, Finland and Sweden have depended more on agreements and guidelines. Finland and Sweden put more emphasis on horizontal IC while in Denmark and Norway the focus has mostly been on vertical integration within health care. However, Finland seems to be the only country trying to push horizontal integration forward through legislation.

Conclusions

IC has been on the agenda in all the Nordic countries but the means to facilitate IC are different. In terms of structural coordination IC seems to mean especially vertical integration. However in Finland there have been attempts to facilitate horizontal IC through legislation.

Key messages

- IC has been on the agenda in all the Nordic countries but the means to facilitate IC are different
- In terms of structural coordination IC seems to mean especially vertical integration

Factors associated with consenting to health record linkage in the Scottish Health Surveys

Carolyn Davies

CA Davies, L Gray, AH Leyland
MRC/CSO Social & Public Health Sciences Unit, University of Glasgow, Glasgow, UK
Contact: carolyn.davies@glasgow.ac.uk

Background

Cross-sectional survey data can be enhanced by linking to routine administrative health data. This effectively creates a longitudinal cohort with no additional burden to survey respondents. In the Scottish Health Survey (SHeS), informed consent from respondents is a pre-requisite for subsequent record linkage to hospitalisation and mortality data. If consent levels vary by socio-demographic or health related factors this may be a source of selection bias. We investigate if associations exist between these factors and consent to linkage.

Methods

Data from 52,340 individuals aged 25–74 years recruited to the SHeS survey between 1995 and 2013 were analysed. Logistic regression models were used to estimate odds ratios (ORs) for consent to linkage. Various socio-demographic and health factors were modelled as explanatory variables to assess their association with consent.

Results

Overall, 89% (range: 86% in 2009 to 93% in 1995) of respondents consented to record linkage. The likelihood of consenting was significantly higher ($p\text{-values} < 0.001$) among those of younger ages, higher social class, non-single marital status, white ethnicity, non-smoking status and higher body mass index, after adjustment for socio-demographic factors. After adjusting for all health and socio-demographic variables, only ethnicity remained significantly associated with granting consent; OR for non-white ($N = 838$, consent = 78%) compared to white 0.49 (95% confidence interval 0.41-0.59).

Conclusions

There is minimal association between socio-demographic and health variables and granting consent to record linkage in these large national surveys. These findings provide reassurance that selection bias arising from non-consent is minimal and gives confidence in the validity of linked survey data study findings. The only exception is the lower consent levels among non-white ethnic minority groups; more effort must be made to gain trust and maximise consent levels amongst this sub-group.

Key messages

- Selection bias from non-consent to health record linkage is minimal in the Scottish Health Surveys
- More effort is needed to gain trust and maximise consent amongst non-white ethnic groups

PARALLEL SESSION 4

Friday 16 October 2015 10:30–11:30

4.A. Pitch presentations: Global Health: Multi-country studies

A systematic review of iron supplement use to reduce anaemia in children during humanitarian crises

Abubakr Mohammad Hussain

AM Hussain, JE Sanders
Faculty of Medical and Human Sciences, The University of Manchester, Manchester, UK
Contact: abubakr.h@gmail.com

Background

Humanitarian crises pose a significant global health problem. In particular, iron deficiency anaemia in children affected by crises can result in increased morbidity and mortality. Currently iron supplements are not routinely given to children affected by humanitarian crises.

Objectives

This review aims to evaluate the evidence for the effectiveness of iron supplements at reducing anaemia in young children (aged 6 to 59 months), who are affected by humanitarian crises. Rates of stunting, wasting and weight gain were also evaluated.

Methods

A systematic review of both published studies and grey literature was performed. The intervention was oral iron supplementation use. Primary outcome measure was anaemia (Haemoglobin (Hb) concentration<110g/L). Secondary outcomes were wasting (weight-for-height (WHZ) z-score <2), stunting (height-for-age (HAZ) z-score <2) and children underweight (weight-for-age (WAZ) z-score <2).

Results

A total of 1137 citations were found from electronic searches. Nine studies were included, three of which were Randomised Controlled Trials. The findings from meta-analyses favoured the use of oral iron supplements in reducing anaemia (RD −0.14 CI −0.2, −0.09, $I2 = p < 0.00001$), in increasing the Hb concentration (SMD 0.32 CI 0.20, 0.44, $Chi2 = 20$ $df = 1$ ($p < 0.00001$) and in improving HAZ scores (SMD 0.23 CI 0.11, 0.35, $Chi2 = 2.77$, $I2 = 64\%$, $p = 0.1$). There was no significant reduction in WHZ scores. (SMD 0.25, CI −0.21, 0.71, Chi2 6.6, $df = 1$, $p = 0.01$).

Conclusion

In young children affected by a humanitarian crisis, there is good evidence supporting the use of iron supplements to reduce anaemia, increase haemoglobin concentrations and reduce rates of stunting. Use of iron supplements does not seem to have any significant effect in rates of wasting. Further research is needed in order to identify the most appropriate type, form and duration of iron supplementation, as well as the safety of using such supplements long-term.

Key message

- From this meta-analysis systematic review, there is strong evidence supporting the use of iron supplements to reduce anaemias in children (aged 6 to 59 months) who are affected by humanitarian crises

Life expectancy and self-reported health: related factors in 36 countries

Lorenzo Righi

L Righi[1], G Messina[1,2], F Moirano[3], C Bedogni[4], N Nante[1,2]
[1]Post Graduate School of Public Health, University of Siena, Italy
[2]Health Services Research Laboratory, University of Siena, Italy
[3]Department of Health, Piedmont Region, Italy
[4]Hospital Management, ''S. Croce e Carle'' Hospital, Cuneo, Italy
Contact: lorenzo.righi@gmail.com

Life expectancy at birth (LE) is the most commonly used objective measure to describe population health reflecting mortality from all causes at all ages. Self-reported health (SRH) is a subjective measure that has been shown as a good predictor of hospitalization and mortality.

We explored the correlations between these two variables and 22 indicators relating to 10 areas (Housing, Income, Jobs, Community, Education, Environment, Civic engagement, Life satisfaction, Safety, Work-life balance) in all 34 OECD countries plus Russia and Brazil.

All data were taken from OECD Better Life Index set, reference years: 2011, 2012 and 2013.

Data were evaluated using Kendall's tau correlation test, Bonferroni correction was applied and p set at 0.0023.

There was no strong significant correlation between LE and SRH (p 0.0182).

LE showed statistically significant negative association with ''Percentage of dwellings without indoor toilet'' (p 0.0008) and ''Homicide rate'' (p 0.0009) and positive association with all Income group variables (''Household net adjusted disposable income'', p 0.0002; ''Household net financial wealth'', p 0.0001), ''Personal earnings'' (p 0.0021) and ''Water quality'' (p 0.0013). SRH was negatively correlated with ''Percentage of dwellings without indoor toilet'' ($p < 0.0001$) and positively correlated with ''Number of rooms per person'' ($p < 0.0001$), ''Personal earnings'' (p 0.0009), ''Quality of support network'' (p 0.0006) and ''Life satisfaction'' (p 0.0002).

The only two variables that correlate strongly with both LE and SRH are ''Percentage of dwellings without indoor toilet'' and ''Personal earnings''. Our results show that LE and SRH reflect different aspects of population health. SRH seems to underestimate the importance of Income and Environment variables while LE results not associated with indicators relevant for quality of life.

Key messages

- Life expectancy and self-reported health are both important measures that reflects different aspects of health. They should not replace but complement each other
- Level of average earnings and percentage of dwellings without indoor toilet can be considered as good objective and subjective population health indicators

Global multimorbidity: a cross-sectional study of 28 countries using the World Health Surveys, 2003

Sara Afshar

S Afshar[1], PJ Roderick[1], AG Hill[2], BD Dimitrov[1], P Kowal[3,4]
[1]Academic Unit of Primary Care and Population Sciences, Faculty of Medicine, University of Southampton, Southampton General Hospital, Southampton, UK
[2]Academic Unit of Social Statistics & Demography, Faculty of Social & Human Sciences, University of Southampton, Southampton, UK
[3]University of Newcastle Research Centre for Gender, Health and Ageing, Newcastle NSW, Australia
[4]World Health Organization's Study on global AGEing and adult health (SAGE), Geneva, Switzerland
Contact: sa2706@soton.ac.uk

Background

Multimorbidity defined as the ''the coexistence of two or more chronic diseases'' in one individual, is increasing in prevalence globally. The aim of this study was to compare the prevalence of multimorbidity across middle-income countries (MICs) and high-income countries (HICs), and investigate patterns by age and socio-economic status (SES).

Methods
Chronic disease data from 28 countries of the World Health Survey (2003) were extracted and inter-country socio-economic differences were examined using gross domestic product (GDP). Regression analyses were applied to examine associations of SES with multimorbidity by region adjusted for age and sex distributions.

Results
The mean world standardized prevalence was 7.8% (95% CI = 7.79–7.83). In all countries, multimorbidity increased significantly with age. A positive but non–linear relationship was found between country GDP and multimorbidity prevalence. Trend analyses of multimorbidity by SES suggest that there are intergenerational differences, with a more inverse SES gradient for younger adults compared to older adults. Higher SES was significantly associated with a decreased risk of multimorbidity in the all-region analyses.

Conclusion
Multimorbidity is a global phenomenon, not just affecting older adults in HICs. Policy makers worldwide need to address these health inequalities, and support the complex service needs of a growing multimorbid population.

Key messages
- National multimorbidity prevalence estimates are positively associated with GDP per capita, although the relationship is non-linea.
- Higher socioeconomic status is associated with a decreased risk of multimorbidity in the all-region analyses

Recent mortality transition from INDEPTH health surveillance data in low and middle-income countries

Ailiana Santosa

A Santosa[1], *P Byass P*[1,2]
[1]Department of Public Health and Clinical Medicine,Unit of Epidemiology and Global Health, Umeå University, Umeå, Sweden
[2]MRC/Wits Rural Public Health and Health Transitions Research Unit, School of Public Health, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa
Contact: ailiana.santosa@epiph.umu.se

Background
While most cause of deaths in LMICs did not have good quality population level data. The INDEPTH data has bridged the gaps of lacking data for LMICS through long-term health and socio-demographic surveillance system. We aimed to examine mortality trends across all age group and adults aged 15–64 years in various categories cause of death from INDEPTH Network sites across Africa and Asia for the period 1992–2012, according to the WHO 2012 verbal autopsy (VA) cause categories.

Methods
Secondary data consisted vital events, which have been recorded through verbal autopsy interviews, used in selected INDEPTH sites in this study. Mortality rate for each site, various cause categories, year, sex and age groups were calculated for examining the mortality pattern over time, using age-sex-time INDEPTH 2013 for suitable comparison across sites. The annual changes in the age–sex–time standardised mortality-all and specific cause of deaths of adult mortality (death occurred between 15 and 64 years) was calculated per 1,000 person-years for each site.

Results
A total of 96,255 deaths with 9,487,418 person years documented during period of 1992 and 2012, of which 86,039 deaths (89%) with complete Inter-VA interview. Out of 96,255 deaths observed, about of 48,589 deaths occurred between aged 15–64 years, accounted for 49.3% of total deaths. Mortality rate has been declined over time in most INDEPTH site, except in Agincourt, South Africa with an increased of 3.4% mortality rate annually. The annual changes in overall mortality rate for all age group ranged from −2.5% in Matlab, Bangladesh site to −12% in Bandafassi, Senegal site. The corresponding for mortality rate in adults aged 15–64 years was from −1.4% to −13.9%.

Conclusions
This study clearly demonstrates how complex process of epidemiological transition in low and middle-income countries during the 20-year period, which are clearly as constitute grounds for urgent needs of public health action.

Key messages
- A continuous increase burden of chronic disease in productive age group in some INDEPTH sites should alert the health policy maker to focus on prevention of premature death in the future
- Diverse pattern of mortality transition in Africa and Asia with diverse economic background and health information system revealed as constitute grounds for urgent needs of public health action

Prevalence of Internet addiction risk in university students in Algeria, France and Hungary

Joel Ladner

A Lukács, N Boussouf, I Deneche, A Albane, B Varga, P Déchelotte, MP Tavolacci
INSERM UMR 1073, University of Rouen, Rouen, France
Faculty of Health Care, University of Miskolc, Miskolc, Hungary
Faculty of Medicine, Constantine 3 University, Constantine, Algeria
Faculty of Economics, University of Miskolc, Miskolc, Hungary
Contact: joel.ladner@univ-rouen.fr

Background
University students face multiple risk comportments such alcohol (binge drinking), tobacco, cannabis consumptions, new risks as stress such depression, risk of eating disorders, stress, and internet addiction. Internet use by young people may have the features of excessive, maladaptive or addictive Internet usage. The objectives were to determine the prevalence of internet addiction risk (IAR) and to identify risk comportments associated to IAR.

Methods
In 2013–14, a cross sectional study was conducted in Constantine (C, Algeria), Miskolc (M, Hungary) and Rouen (R, France). University students completed a standardized and anonymous self questionnaire which collected a large sample of different data, including age, gender, alcohol, tobacco and cannabis consumptions, physical activity, mental stress, risk of eating disorders. The scale of Orman (nine questions) was used to determine the IAR in three levels: low, medium and high risks.

Results
A total of 3,109 students were included: 532 in C, 885 in M and 1,692 in R. The mean age was 21.1 years and the sex-ratio M:W = 0.45. Respectively in C, M and R, 59.3%, 17.5% and 23.5% presented medium and high IAR (only high risk, 26.7%, 1.4%, 2.3%) ($p < 10-4$). In the three countries, the IAR was positively and significantly associated with the stress level. In the three countries, students practising sport was less at IAR. In M and R, IAR was significantly and positively associated to binge drinking and frequency of drunkenness. A significant relation was found between high IAR and tobacco consumption.

Conclusion
In three different socio-cultural environments, the prevalence of IAR was a risk, especially in Algeria, quite similar the two European countries. This study shows that IRA was associated with risks comportments. New behaviours risks as cyberaddiction appear problematic in 3 different socio-cultural contexts.

Key messages
- There is a need for public health practitioners and social scientists working on these new challenges
- These results could help to develop interventions focussing on these risk behaviours adapted to the socio-cultural environment

4.B. Pitch Presentations: Research, Policy & Practice in Europe

Public health training and research competencies in 2015: a review of literature

Giuseppe La Torre

G La Torre[1], G Damiani[2], S Mancinelli[3], C De Vito[1], M Maurici[3], R Bucci[2], E D'Andrea[1], P Parente[2], F Lucaroni[3], E De Vito[4], P Villari[1], E Franco[3], W Ricciardi[2]
[1]Department of Public Health and Infectious Diseases, Sapienza University of Rome, Italy
[2]Department of Public Health, Catholic University of the Sacred Heart, Rome, Italy
[3]Department of Biomedicine and Prevention, University of Rome 'Tor Vergata', Rome, Italy
[4]Department of Human, social and Health sciences, University of Cassino and Southern Lazio, Italy
Contact: giuseppe.latorre@uniroma1.it

Background

The three Roman Schools of specialization on Public Health (PH), on behalf of the Roman Academy of Public Health (ARSP), started a project to provide a common training to their residents. The aim of this study was to define the educational needs and gaps of PH professionals through a review of the PH competencies worldwide.

Methods

A Literature search was performed. Moreover, relevant documents produced by PH training and teaching associations and core curricula of Masters in PH were retrieved. Web sites of international PH organizations have been investigated and relevant documents were collected. The competencies were then revised and supplemented in the light of the guidelines for programming teaching of Schools of Specialization in PH detailed in Italian Ministerial Decree 68/2015.

Results

Ten main areas, reflecting skill areas within PH, were identified: analytical and assessment area; policy development and program planning; communication; social determinants and health inequalities; health promotion at community dimension; public health sciences; financial planning and management; leadership, systems thinking and capacity building; prevention of communicable and non-communicable diseases; environment, food and occupational health. For each area a set of skills, called core competencies, were delineated and listed. The core competencies are in agreement with the desirable skills for the broad practice of PH. The main gaps were referred to three domains: social determinants and health inequalities, communication, leadership, systems thinking and capacity building.

Conclusions

Common core competencies are useful to understand, assess, and meet training and workforce needs and also obtain a nationwide PH professional profile enhancing the role of PH in the European Community. However, we need to take into account the diversity of the health care systems and the social and economic trends among Countries.

Key message

- Common and supranational public health professional profile is needed to guarantee cooperation among Countries and enhance the role of public health in Europe

'Europeanised' health professional education fosters cost-effective cross-border emergency care

Alexandra Ziemann

A Ziemann[1], B Dul[2], A van der Zanden[1], T Deckers[2], J Telaar[2], C Schenkeveld[1]
[1]Acute Zorg Euregio, Enschede, The Netherlands
[2]Feuerwehr- und Rettungsdienstakademie Bocholt, Bocholt, Germany
Contact: a.ziemann@acutezorgeuregio.nl

European health professional education levels are aligned to enable cross-border movement and exchange. In border regions, this could reduce long lasting obstacles for cross-border health care arising from differences in staff competence levels between neighbouring countries. We analysed the new German emergency medical technician education for its impact on cross-border cooperation with the Netherlands.

In a cross-border comparative case study we analysed the clinical competences of the new German education in the border state of North Rhine-Westphalia with those of Dutch paramedics for nine major emergency indications. We assessed the legal impact of the new education level for cross-border emergency care regarding liability and the economic impact by comparing costs for cross-border training to the alternative of an extra Dutch ambulance.

There are no differences in clinical competences of Dutch paramedics and the new German emergency technicians for any of the nine indications. Differences are procedural and cultural. These differences can be tackled by training before actual cross-border exchange of staff. With the same level of competence, German emergency technicians can answer emergency calls in the Netherlands to reduce response time/access to care problems without assistance by Dutch paramedics or German emergency physicians. Liability is no longer an obstacle and can be covered by existing insurances of ambulance services. Comparing the costs for 5 years in one ambulance service area, cross-border cooperation can prevent the Netherlands to spend € 3.7 Mio.

Diminishing competence and legal obstacles to enable cross-border exchange of emergency staff by ‚Europeanising' education saves considerable costs compared to the ‚national' alternative solution. We developed cross-border training modules to be piloted by 2016 for 40 German emergency technicians. Afterwards, the training can be provided to German and Dutch emergency technicians along the whole border.

Key messages

- 'Europeanisation' of education levels fosters cross-border emergency care by removing clinical and legal obstacles and saves considerable additional costs
- Staff training on organisational and cultural differences between countries' emergency care systems and on Frequently Asked Questions can enable sustainable cross-border cooperation

Learning about European integrations in health within Health Informatics course

Jadranka Bozikov

J Bozikov
Andrija Stampar School of Public Health, School of Medicine, University of Zagreb, Zagreb, Croatia
Contact: jbozikov@snz.hr

Background

Nowadays, the use of Information and Communication Technology (ICT) is mandatory for any health professional, so that students should acquire not only general ICT skills, but also be delivered education and training that allows for their ethical and responsible use. Students should be familiar with the respective EU Directives, recommendations and guidelines in order to be able to implement them in everyday practice and deploy telemedicine and electronic and mobile applications for health (eHealth & mHealth).

Objectives

To teach students within the Health Informatics course about European integration processes and respective Directives/Position Papers on personal data protection, patients' rights in cross-border healthcare and other aspects unvolving the use of ICT; prepare them for participation in health information systems including the use of mHealth and telemedicine; make them aware of the great potential of eHealth and mHealth, but also of the need for validation/certification of such applications.

Results

Fifth-year medical students were asked to read, apprehend and present EU Directives and other Papers related to Digital Agenda for Europe (e.g. 95/46/EC, 2011/24/EU, Charter of Fundamental Rights of the European Union, eHealth Action Plan 2012–2020, Green Paper on Mobile Health), as well as recommendations and guidelines regarding mobile medical applications (e.g. FDA-MMA-1741). In addition, students had to download, test and report about the features and limitations of different mHealth applications. Similar task of testing health and fitness applications for smart phones was proven appropriate also for the first-year medical students.

Conclusions

Testing of mHealth applications was proven appropriate for both, graduate and undergraduate students; it also enables them to understand the need for validation and certification of such applications. Health Informatics courses might facilitate the promotion of European integration processes.

Key messages

- Medical students need to be trained in the use of mHealth applications to envisage their potential for healthcare and to become aware of the need for validation/certification of such applications
- Students should discuss European integration processes and transposition of EU Directives into national legislation and recognize the need for harmonization of healthcare systems

Risk assessment in public health emergency: the Belgian experience

Sophie Quoilin

S Quoilin, T Lernout, J Rebolledo
Epidemiology Infectious diseases, Scientific Institute Public Health, Brussels, Belgium
Contact: Sophie.quoilin@wiv-isp.be

Issue

In 2007, Belgium designed an organisational model allowing to early detect, assess, notify and control potential public health threats of international concern.

Description

The design is a triad including the National Focal Point for international notification, a Risk Assessment Group (RAG) with representatives from health authorities of all levels of the state, epidemiologists and ad hoc experts to assess the risk and to recommend control measures and a Risk Management Group entitled to take decisions. Post-assessment monitoring and evaluation of the intervention is carried out by the RAG.

Results

Between 2007 and 2014, the RAG realised 36 assessments (1 to 8/year) for 57 alerts. 86% of the alerts were related to infectious diseases and 32% were detected in Belgium. Of the Belgian alerts, 50% were assessed and only one had international concern.

A wide range of recommendations have been approved by the Risk Management Group and effectively put in place by health authorities including elaboration of national plans (antibiotics resistance and exotic mosquitoes), communication to health professionals (Chikungunya or Ebola alert), activation of the National Influenza Plan or creation of a national reference centre for mumps diagnosis.

Lessons

Initially designed to complete the implementation of the International Health Regulations (2005), the triad mechanism was also evaluated as useful for national threats what led in 2014 to the official enlargement of its mandate to these national threats. The required level of evidence for the assessment is event-dependent allowing to decline the methodology into three levels of complexity from epidemiological opinion to evidence based risk assessment.

Key messages

- The triad mechanism facilitates the coordinated decision in Belgium
- The composition of the RAG reinforces the reliability of the assessment for decision makers as it includes evidences and recommendations adapted to the country

The impact of EU Directive on cross-border healthcare on Poland's health services market

Piotr Romaniuk

P Romaniuk, K Kaczmarek
Department of Health Policy, School of Public Health, Medical University of Silesia in Katowice, Poland
Contact: promaniuk@sum.edu.pl

Background

The EU Directive on the application of patients' rights in cross-border healthcare provides rules for facilitating access to cross-border healthcare and promotes cooperation on healthcare between member states, which brings many changes both in the organization and financing of health care. The aim of this paper is to assess whether providers in Poland are prepared to function within the single European market and what may be the impact on the functioning of providers in the domestic market. Methods. The study was conducted on a random sample of health care institutions, in 5 Polish regional administrative units both located on the border, and not sharing a border with other EU countries. A sample was designed with respect to the proportional representation of healthcare providers from each voivideship. The study included 1051 units, of which 148 (14,08%) filled the questionnaire. The study used an online questionnaire (CAWI). To compare results in different subgroups, we applied Pearson's chi-square test. Results. Only few providers plan to carry out treatments for patients from other EU countries or declares endeavours to acquire foreign patients. Almost none took any action in the area of promotion outside Poland. Respondents usualy did not expect any change in the number of foreign patients in their institution, although they expect an increased number of foreign patients in the Polish health care system. Providers seemed to be aware also of the danger of loss of patients, seing this primarily as a problem for public providers. Conclusions. Providers in Poland are not prepared to operate on an open European health services market and the awareness of the possible consequences of the implementation of the Directive seems to be insufficient. The new circumstances may be a source of danger to Polish providers facing an outflow of patients, who may not necessarily be compensated by a similar movement in the opposite direction.

Key messages

- The study proves very limited interest of Polish healthcare providers in obtaining new patients form abroad
- Polish providers have to face the increased emigration of patients to other EU Member States, which will not be compensated by the similar movement in opposite direction

Conditions for policy innovation in Dutch intersectoral policy networks: a fsQCA analysis

Janneke Harting

DT Peters[1], S Verweij[2], K Greaux[3], K Stronks[1], J Harting[1]
[1]Department of Public Health, AMC University of Amsterdam, Amsterdam, The Netherlands
[2]Department of Political Science, University of Bamberg, Bamberg, Germany
[3]Department of Health Promotion, Maastricht University, Maastricht, The Netherlands
Contact: j.harting@amc.uva.nl

Background

To effectively improve health, policies should address a variety of personal and environmental determinants of health. To achieve this, intersectoral network diversity is regarded a necessary condition. However, diversity may also hamper network performance because size and complexity increase. Coping with complexity would require management and extra budget. We investigated the importance of network diversity amidst those other conditions in addressing a variety of determinants.

Method

In a survey (2012), leaders of Dutch intersectoral policy projects described their network in terms of sectors and actors (diversity and size). In a second survey (2012), leaders (N = 38) and actors (N = 278) assessed the level of network management. A third survey (2010-2014) asked implementers (N = 137) of health promotion interventions (N = 289) which personal and/or environmental determinants were addressed (determinant variety). Project proposals disclosed the available extra budget. For 25 projects, enough information was available to include them in a fuzzy set Qualitative Comparative Analysis.

Results

In order to address a variety of health determinants, diversity was necessary for networks that were either small or had little extra budget, under the condition of intense management. Such variety was also achieved by small networks with large extra budgets and by large networks with small extra budgets, both again under the condition of intense management.

Conclusions

Intersectoral policy networks that aim to address a variety of health determinants require first of all intense network management. The importance of network diversity seems to depends on network size and the availability of additional resources. If substantial, both these other conditions may counterbalance the added value of network diversity in addressing a variety of health determinants.

Key messages

- Next to intense management, policy networks that are small or have limited extra resources should strive for intersectoral diversity in order to address a variety of health determinants
- Policy networks that are large or have additional resources do not need intersectoral diversity, while intense management is of similar importance for addressing a variety of health determinants

4.C. Pitch Presentations: Perinatal and postnatal care of migrants

Migrant Friendly Maternity Care in a Western Urban Centre

Anita Gagnon

A Gagnon[1], S Pelaez[1], L Merry[1], A Amiri[2], K Hendricks[1]
[1]McGill University, Montreal, Canada
[2]McMaster University, Hamilton, Canada
Contact: anita.gagnon@mcgill.ca

Background and Purpose

Migrant-sensitive care provision has been identified as a priority in the World Health Assembly Resolution, 'Health of Migrants'. Little research has been done on the extent to which migrant-sensitive ('friendly') maternity care (MFMC) is currently being provided, factors that support or inhibit provision of such care, and whether specific components of MFMC may be more important than others. We sought to determine: (1) to what extent recommended components of MFMC are being provided to recently-arrived international migrant women giving birth in an urban Canadian city; and (2) what contextual factors support the implementation of MFMC.

Methodology

We conducted a mixed quantitative-qualitative study of 2400 women recently giving birth, speaking any language, in Canada <8 years, and from non-Western countries; and 63 health professionals. Medical records and unit documents were reviewed. The Migrant Friendly Maternity Care Questionnaire was administered and open-ended interviews were completed.

Results

Women from over 97 countries, speaking any of 79 languages reported on their perceptions of how the health system responded to their needs including communication facilitation, promotion of social support, education for healthy weight, treatment of pre-pregnancy/perinatal/maternal illnesses, early access to prenatal care, and responsiveness to preferences for care, among other indicators of MFMC. A range of professionals reported on challenges to care provision and how these were met.

Conclusions and Discussion

Empirical data on migrant-sensitive maternity care, contextual factors supportive of that care, and associated reproductive health outcomes offer baseline data for programming and to permit benchmarking nationally and internationally.

Key messages

- Empirical data on migrant-sensitive maternity care offer baseline data for health programming
- Migrant-friendly maternity care data allow for benchmarking for the future

Improved response to warning signs among pregnant migrant women in Denmark: A feasibility study

Sarah Fredsted Villadsen

SF Villadsen, LH Mortensen, CH Morrison, NG Kivi, AMN Andersen
Department of Public Health, University of Copenhagen, Copenhagen, Denmark
Contact: sfv@sund.ku.dk

Background

Broad social inequalities are likely to affect patient-provider interactions and shape the tone of their encounters. In Europe as well as Denmark infant mortality is higher among some migrant groups compared to the majority populations and delays in access to care have been suggested. The MAMAACT study was developed to enhance the communication between pregnant migrant women and midwives during antenatal care (ANC) regarding signs from the body and to clarify how to access acute care. The feasibility, implementation process and effect on the response to pregnancy warning signs are investigated.

Methods

The study was a complex intervention implemented at a large maternity ward in Denmark where 22% were first or second generation migrants. Trainings of midwives on migrant reproductive health and cross-cultural communication were supplemented with recurring dialogue meetings in small groups. Increased attention during ANC on when to act and where to go was facilitated by a folder and a smartphone app, available in seven languages and tested for cultural appropriateness. The study was universally implemented from March to December 2014. Pregnant women's knowledge and perceived actions were measured in a survey pre and post intervention with control sites included. The implementation process was studied qualitatively using the dialogue meetings.

Results

Preliminary results show that the standardized organization of ANC was a challenge for conducting diversity-sensitive care.

Among the midwives, increased reflection on cultural diversity was initiated and welcomed. Insufficient interpretation services were a concern. The folder gained popularity as the midwives became more familiar with it. The pregnant women evaluated the folder and app positively.

Discussion

The MAMAACT study was a feasible and acceptable strategy that has the potential to improve the cross-cultural communication and response to warning signs in routine ANC.

Key message

- The MAMAACT study was a feasible and acceptable strategy that has the potential to improve the cross cultural communication and response to warning signs in routine ANC

Perinatal outcomes among immigrant mothers: a population-based birth cohort study in North-East Italy

Tea Burmaz

T Burmaz[1], L Cestari[1], P Romor[2], L Zanier[3], L Simonato[1], C Canova[1]
[1]Laboratory of Public Health and Population Studies, Department of Molecular Medicine, University of Padua, Padua, Italy
[2]Friuli-Venezia Giulia Regional Health Information System, Informatica per il Sistema degli Enti Locali (INSIEL) S.p.A., Udine, Italy)
[3]Epidemiological Service, Health Directorate, Friuli Venezia-Giulia Region, Udine, Italy
Contact: burmaz@tiscali.it

Background

Perinatal outcomes have been extensively studied among immigrant women (Low Income Country-LIC citizen) with conflicting results and few studies were carried out in the Italian population. The aim of this study was to investigate the association between maternal citizenship and perinatal outcomes adjusted by educational level and explore the role of inadequate perinatal care on such associations using data from a large population-based birth cohort study.

Methods

All newborn in Friuli-Venezia Giulia Region (Italy) between 1989 and 2012 registered in the Medical Birth Register were included in the cohort. Associations between maternal citizenship (Italy vs LIC) and perinatal outcomes variables (prematurity (<37 weeks), low birth weight (<2,500 g), stillbirths, early, late and post neonatal mortality, hospitalization in the first year of life) were analyzed in multivariate logistic regression models with further adjustment for maternal education and stratification for antenatal care (<4, 4+ antenatal echographies).

Results

214,369 newborns were included in the study among whom 20,568 (9.6%) from LIC.

Children born to mother form LIC were at increased risk of stillbirths (OR 1.60; 95% CI = 1.26–2.04), prematurity (OR 1.31; 95% CI = 1.23–1.39), low birth weight (OR 1.23; 95% CI = 1.15–1.31) and hospitalization in the first year of life (OR 1.37; 95% CI = 1.31–1.43), but not of early, late and post neonatal mortality. After controlling for education, risks for adverse perinatal outcomes among immigrants slightly decreased remaining statistically significant.

Immigrant mothers with inadequate antenatal care showed high risks for all perinatal outcomes, although babies born to immigrant mothers with adequate antenatal care were still at some risk.

Conclusion

Maternal immigrant status is associated with most adverse perinatal outcomes. Some, but not all of these associations can be explained by inadequate antenatal care while maternal education seems to play a small role.

Key messages

- Maternal immigrant status is a risk factor for most of adverse perinatal outcomes indicating importance of specific health programs specifically targeted to immigrant mothers
- Inadequate antenatal care explains some part, but not all the risks of maternal immigrant status on adverse perinatal outcomes

Non-access to prenatal care for the migrant pregnant women seen by Doctors of the World in Europe

Nathalie Simonnot

N Simonnot, C Vuillermoz, F Vanbiervliet, M Vicart, P Chauvin
Doctors of the World – Médecins du Monde International Network, 75018 Paris, France
INSERM, Sorbonne Universités, UPMC Univ Paris 06, UMRS 1136, IPLESP, ERES, 75012 Paris, France
Contact: nathalie.simonnot@medecinsdumonde.net

Background

Since 2006, the the Doctors of the World – Médecins du Monde (MdM) International Network Observatory has been conducting multicenter surveys in Europe among vulnerable people – the vast majority of whom are immigrants – who make use of its national programs, in order to describe their social and health-related characteristics and the obstacles to access to care, with the goal of informing the public authorities and European institutions and bringing about positive changes.

Materials and Methods

A cross-sectional analysis of routine data collected from 23,341 patients who came to MdM clinics in 26 cities in 11 countries in 2014 (Belgium, Canada, France, Germany Greece, the Netherlands, Spain, Sweden, Switzerland, Turkey and United Kingdom). Of them, 8849 were women, 437 of whom were pregnant.

Results

Nearly all of the pregnant women who visited the MdM clinics were foreigners, half of whom did not have a residency permit. More than half of the women interviewed in Europe had inadequate housing, 62.9% considered their dwelling harmful to their health, and nearly all of them were living below the poverty line in their host country. A third had no one to turn to in case of need. More than half had not had access to a prenatal follow-up (54.2%). Only half of the pregnant women knew their HIV status, and 14.3% were HIV-positive.

Discussion

The analysis of the face-to-face data from these women with multiple health vulnerabilities, together with an examination of the current national legislation, shows how much work still needs to be done to ensure a systematic prenatal follow-up for all pregnant women, and for their unborn children, in accordance with WHO recommendations.

Key messages

- Many poor migrant pregnant women lack of ante and post natal care in Europe
- Doctors of the World – Médecins du Monde (MdM) International Network Observatory plea for a true universal access to ante and post natal care all over the EU

Birth weight of infants born to migrant mothers in Norway

Ingvil Sørbye

IK Sørbye[1], AK Daltveit[2], S Vangen[1]
[1]Norwegian National Advisory Unit on Women's Health, Oslo University Hospital, Norway
[2]Department of Global Public Health and Primary Care, University of Bergen, Norway
Contact: isorbye@ous-hf.no

Background

An increasing proportion of newborns across Europe are born to migrant mothers.

Birth weight is known to vary between ethnic groups, but it is less clear if disparities persist among migrant groups. We examined the association between maternal country of birth and offspring mean birth weight among major migrant groups living in Norway, and assessed any effects of the length of residence in Norway and the level of education among mothers.

Methods

We linked birth and immigration data for 29 964 singletons born in Norway to foreign-born women that themselves were born in either Pakistan, Somalia, Iraq, Sri Lanka, the Philippines or Vietnam between 1990 and 2009. Infants born to women of Norwegian origin was the reference ($n = 475\,951$). We calculated mean birth weight in grams (g) with standard deviation (SD) in each group. Associations between the maternal country of birth and offspring birth weight was estimated in linear regression models after adjustment for maternal age, parity, level of education, length of residence in Norway, gestational age and infant sex.

Results

Infants in all six migrant groups had a lower mean birth weight compared with infants born to women of Norwegian origin. Among migrant groups, mean birth weight was highest among Philippine women (3402g; SD 578) and lowest among Vietnamese women (3235g; SD 499), (reference: 3581g; SD 591). In adjusted models, the mean birth weight difference was greatest among infants born to Pakistani women (−273g) followed by infants born to Vietnamese (−260g), Sri Lankese (−213g), Somali (−175g) and Iraqi women (−124g). A length of residence of $\geq$5 years and higher education was associated to increased birth weight of the offspring. Adjusting for maternal diabetes did not change the results.

Conclusions

Maternal country of birth is associated to offspring birth weight with differences of up to 300g. Ethnic differences in birth weight persist in recent migrant populations to high-income contexts.

Key messages

- Ethnic differences in birth weight persist in migrant populations
- The implication of ethnic disparities should be considered when applying national birth weight standards to all

4.D. Pitch Presentations: Evidence and socioeconomic status

The role of circumstances in explaining health and income related inequalities in European countries

Luca Salmasi

M Pasqualini, M Chiavarini, D Lanari, L Minelli, L Pieroni, L Salmasi
Department of Political Science, University of Perugia, Perugia, Italy
Contact: luca.salmasi@unipg.it

Introduction

According to Roemer (1998) equality of opportunity in modern societies is reached when individuals' accomplishments are completely determined by choices and effort. A recent paper by Branko (2014) demonstrated how 50% of variability in income of world population is determined by country of birth and income distribution within that country (i.e., circumstances over which individuals have no control) leaving limited room for effort. Since health and income are generally strictly related because individuals who are better off financially tend to have better health and better health habits, we propose, in this paper, to estimate the variability in health that is determined by circumstances.

Methods

We use data from the Survey of Health, Ageing and Retirement (SHARE) and the English Longitudinal Survey on Ageing (ELSA), two comparable multidisciplinary surveys that provide micro-level data on health and financial resources among the elderly for a large number of European countries. We also exploit information which focus on individual life histories, providing detailed retrospective assessments regarding childhood characteristics. We used OLS regression models to estimate elasticities of various health and income outcomes to early-life conditions at the household, regional and country level.

Results

We find that early-life conditions significantly explain health and income variability; however the contribution appears to be limited ranging from 5 to 10 percentage points of total variability. Inequalities in early-life conditions at the household level are those with larger predictive power.

Conclusions

Early-life conditions are relevant in explaining variability in health and income in adult age, but with a more limited impact than what found by previous studies on income. Such differences could be attributed to the level of aggregation of the data used or to differences in income and health inequality levels.

Key messages

- Equality of opportunities should be pursued to guarantee that individuals' accomplishments are completely determined by choices and effort and not by circumstances over which they have no control
- Early-life conditions significantly explain health and income variability; however the contribution appears to be limited ranging from 5 to 10 percentage points of total variability

Ethnic Disparities in Chronic Kidney Disease in the Netherlands

Charles Agyemang

C Agyemang[1], MB Snijder[1], DN Adjei[1], BJH van den Born[2], P Modesti[3], RJG Peters[4], K Stronks[1], L Vogt[5]
[1] Department of Public Health, Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands
[2] Department of Internal & Vascular Medicine, Academic Medical Centre, Amsterdam, the Netherlands
[3] Department of Clinical and Experimental Medicine, University of Florence, Florence, Italy
[4] (epartment of Cardiology, Academic Medical Center, University of Amsterdam
[5] Department of Internal Medicine, section Nephrology, Academic Medical Center, University of Amsterdam
Contact: c.o.agyemang@amc.uva.nl

Background

Evidence suggests important ethnic differences in Chronic kidney disease (CKD) mainly in the USA, but data among various ethnic groups in Europe are lacking. We therefore assessed differences in CKD in six ethnic groups, and explored to what extent the observed differences could be accounted for by differences in conventional cardiovascular risk factors (smoking, physical activity, obesity, hypertension, diabetes and hypercholesterolemia).

Methods

Baseline data from the HELIUS study were used including 12,888 participants (2,129 Dutch, 2,273 South-Asian Surinamese, 2,159 African Surinamese, 1,853 Ghanaians, 2,255 Turks, 2,219 Moroccans) aged 18–70 years. CKD status was assessed using the new KDIGO 2012 classification. Comparisons among groups were made using proportions and age-adjusted prevalence ratios (PRs).

Results

The age-standardised prevalence of overall CKD was higher in all ethnic minority groups ranging from 4.6% (95% CI, 3.8-5.5%) in African Surinamese to 8.0% (95% CI, 6.7%-9.4%) in Turks compared with 3.0% (95% CI, 2.3-3.7%) in Dutch. Adjustment for conventional risk factors reduced the PR substantially, but the ethnic differences remained for all ethnic minority groups, except African Surinamese, with the PR ranging from 1.48 (95% CI, 1.12-1.97) in Ghanaians to 1.75 (95% CI, 1.33-2.30) in Turks compared with Dutch. Similar findings were found when CKD was stratified into moderately increased risk, and high and very high risk groups. Among the high to very high CKD risk group (combined), conventional risk factors accounted for most of the ethnic differences in CKD except for South-Asian Surinamese (95% CI, 2.60, 1.26-5.34) and Moroccans (95% CI, 2.33, 1.05-5.18).

Conclusions

Our findings indicate an increased prevalence of CKD in ethnic minority groups. Conventional risk factors contribute substantially to the ethnic differences in CKD, but did not account for all the ethnic differences. These findings suggest that effective interventions to reduce these modifiable risk factors may help to reduce ethnic inequalities in CKD; and also highlight the needs for further research to identify other potential factors contributing to the ethnic inequalities in CKD.

Key messages

- Our findings indicate an increased prevalence of CKD in ethnic minority groups
- Conventional risk factors contribute substantially to the ethnic differences in CKD, but did not account for all the ethnic differences

Trends in social inequalities in smoking and secondhand smoke exposure among adolescents in Germany

Benjamin Kuntz

B Kuntz, T Lampert
Department of Epidemiology and Health Monitoring, Robert Koch Institute, Berlin, Germany
Contact: b.kuntz@rki.de

Background

In most European countries, smoking is more prevalent among socioeconomically disadvantaged groups. Even in non-smokers, people with lower socioeconomic status (SES) are more likely to be exposed to secondhand smoke (SHS). Such differences already exist in children and adolescents. This study aimed to examine time trends in tobacco consumption and SHS exposure among adolescents in Germany.

Methods

Analyses are based on data from two waves of the German Health Interview and Examination Survey for Children and Adolescents (KiGGS) that were conducted from 2003–2006 and from 2009–2012. Adolescents aged 11 to 17 years were asked about their smoking habits and SHS exposure (KiGGS baseline study, n = 6,812; KiGGS Wave 1, n = 5,258). SES was quantified as an index based on information about parental education, occupational status, and income. Prevalences and age-adjusted odds ratios (OR) from logistic regression models were calculated.

Results

Within only six years, overall smoking prevalence declined from 20.4% to 12.0%. The proportion of non-smoking adolescents spending several times a week or even daily some time in rooms where others are smoking decreased from 35.1% to 18.8%. Distinct reductions in smoking prevalence and SHS exposure could be seen in all SES groups. In 2009–2012, daily smoking (OR = 3.71; 95% CI = 2.05-6.69) as well as regular (OR = 3.84; 95% CI = 2.64-5.57) and daily (OR=5.14; 95% CI=3.17-8.31) SHS exposure was still more common among adolescents with low SES than among their high SES peers.

Conclusions

According to our findings, measures that have been implemented in Germany in order to protect young people from the health hazards of smoking and SHS exposure had some positive effects in all SES groups. Reducing social inequalities in tobacco consumption and SHS exposure remains an important public health goal.

Key messages

- In Germany, smoking prevalence and secondhand smoke exposure among adolescents declined in recent years
- Although prevalence rates decreased in all SES groups, large social inequalities with higher rates among low-SES adolescents still exist

Pregnancy folic acid supplementation in an area of Valencia, Spain: patterns & socioeconomic factors

Ana Boned-Ombuena

A Boned-Ombuena[1], GA Castellar Galván[1], LM Rivera Roca[1], D Adam Ruíz[1], J Cerezo García[1], J Moreno Olmos[1], F Úbeda Barberá[1], A Blazquez Baguena[1], C Peris Alcaide[1], J Pérez Panadés[2]
[1]Salvador Allende Primary Healthcare Centre, Health Department 7, Valencia, Spain
[2]Public Health General Directorate, Valencian Regional Health Administration, Valencia, Spain
Contact: anaboned@hotmail.com

Background

Adequate periconceptional folic acid supplementation (PFAS) is essential to reduce the risk of neutral tube defects (NTD) and other anomalies. This study aimed to analyse patterns and predictors of PFAS in an economically deprived urban area of Valencia, Spain.

Methods

Cross-sectional survey, 2014. Population of study: pregnant women aged 18–45 years attending a primary care centre for gestational follow-up by midwives. These midwives monitor aprox. 1,060 pregnant women/year. Women who had not completed the 1st trimester of pregnancy were excluded. Comparison: Chi-square and Student t tests.

Results

A total of 134 pregnant women were included, mean age 30.9 years (SD 5.7). Only 23.9% took adequate PFAS. Most women (74.6%) did not start supplementation at least 1 month before getting pregnant and 3.0% interrupted it before completion of the 1st trimester. Some (12.7%) did not take the appropriate dose, and 3.0% did not take it daily. A 41.0% had not heard about FA before getting pregnant, and only 27.6% sought preconceptional advice from a health professional.

Non-compliant women were younger (30.1 vs. 33.2 years, p-value 0,008), and their household income was lower (1,425 vs. 2,189€, p-value 0,000). Other factors associated with non-compliance were: not being married (p-value 0,022), pre-secondary studies (p-value 0,011), partner's pre-secondary studies (p-value 0,022), unemployment (p-value 0,000), unplanned pregnancy (p-value 0,000), no fertility treatment (p-value 0,026), smoking (p-value 0,020), no having heard about FA before pregnancy (p-value 0,012) and not having sought preconceptional advice from a health professional (p-value 0,000).

Conclusions

Compliance with adequate PFAS is extremely low in this area: only 23.9% of pregnant women took it as they should. Non-compliance is significantly associated with socioeconomic factors, including low educational level, unemployment and low household income. Interventions are highly needed, such as promotion of PFAS and preconceptional counselling.

Key messages

- Compliance with adequate PFAS is extremely low in this economically deprived urban area of Valencia, Spain: only 23.9% of pregnant women take it as they should
- Non-compliance is significantly associated with socioeconomic factors, including educational level and income. Interventions are highly needed, such as PFAS promotion and preconceptional counselling

Socioeconomic equity of ambulatory care sensitive conditions in 1996–2010 in Finland

Sonja Lumme

S Lumme[1], K Manderbacka[1], M Arffman[1], M Lehikoinen[2,3], I Keskimäki[1,4]
[1]Department of Health and Social Care Systems, National Institute for Health and Welfare (THL), Helsinki, Finland
[2]Department of Social services and Health care, Health centre of City of Helsinki, Finland
[3]Network of Academic Health Centres and Department of General Practice and Primary Health Care, University of Helsinki, Finland
[4]School of Health Sciences, University of Tampere, Finland
Contact: sonja.lumme@thl.fi

Background

Ambulatory care sensitive conditions (ACSC) are conditions in which hospitalisations could be prevented by interventions by primary care. Hospital admissions due to ACSCs have under recent years been used to indirectly evaluate the effectiveness and quality of primary care. Earlier studies have demonstrated a link between ACSCs and socioeconomic status, interpreted as greater barriers to or inadequate primary care of people with low income. The aim of this study was to evaluate the socioeconomic equity in ACSCs in Finland from the mid-1990s to 2010.

Methods

We analysed ACSC hospital admissions of non-institutionalised patients over 25 years in 1996–2010 in Finland. The data on ACSC hospital admissions were extracted from the hospital discharge register which were individually linked to the population registries of Statistics Finland for data on family income and demographic factors. We defined ACSCs based on the list used in the United Kingdom. Age-standardized ACSC rates by income quintiles were calculated using the direct method with the European population as a standard and non-institutionalised Finnish residents over 25 years as a risk population.

Results

Hospital admissions due to ACSCs covered 10–15% of all hospital admissions during the study period in Finland. In 2010 the total number of ACSCs was 103 000 with a decrease of 15% from 1996. In 1996–2010 the ACSC rate decreased from 7 500 to 5 800 (/ 100 000 person years) for men in the lowest income quintile and from 3 070 to 1 900 in the highest. For women, the annual ACSC rates were 28–34% lower than for men but the income gradients steepened in parallel in both sexes reaching the rate ratio of 3.0 in men and 2.8 in women in 2010 between the lowest and highest income quintile.

Conclusions

Our study revealed that patients with low income are more likely to be hospitalized due to ACSCs. We also found that despite the diminishing of the hospital admissions during the study period, socioeconomic disparities increased in the ACSCs from the mid-1990s to 2010 in Finland.

Key messages

- Our results suggest relative deterioration in access to and/or quality of primary care among the disadvantaged in Finland
- The ACSC rates, like mortality indicators, display growing socioeconomic disparities. Our findings corroborate earlier studies indicating increasing inequities in health and health care in Finland

Childhood SES and social integration among older people in Japan

Toyo Ashida

T Ashida[1], T Fujiwara[2], N Kondo[3], K Kondo[4]
[1]Center for Home Care Medicine, Faculty of Medicine, The University of Tokyo, Tokyo, Japan
[2]Department of Social Medicine, National Research Institute for Child Health and Development, Tokyo, Japan
[3]Department of Health and Social behavior, School of Public Health, The University of Tokyo, Tokyo, Japan
[4]Center for Preventive Medical Sciences, Graduate School of Medicine, Chiba University, Chiba, Japan
Contact: t-ashida@m.u-tokyo.ac.jp

Background

Study is limited on the association between childhood socioeconomic status (SES) and social integration, which is important for health among elderly. The purpose of this study is to investigate the association between childhood SES and social integration among older people in Japan.

Methods

We used data from the Japan Gerontological Evaluation Study (JAGES) 2010. This study was self-reported survey of 23,444 (people aged ≧65 without nursing care) including childhood SES and social integration. Childhood SES was divided into three groups (upper, middle, low). Social integration was defined as participation of social groups (hobby group(hobby) or sports groups or clubs(sports)), the number of friends or acquaintance who met during one month(≧6 persons), and frequency to meet friend or acquaintance during one month. We applied Poisson regression analysis to assess the association between childhood SES and each social integration measurements, adjusting sex, age, education, equivalent income, job, and tendency of trust in other people.

Results

Older people with low childhood SES were less likely to participate social activity: for example, older people with low childhood SES were 11% less likely participate in sports club (prevalence rate ratio (PR) : 0.89, 95% confidence interval (CI) : 0.80-0.98), 12% less frequently to meet friend(IRR : 0.88, 95%CI : 0.83-0.93).

Conclusions

Childhood SES was positively associated with social integration in older age in Japan. The tackling of childhood poverty might be impact to maintain social integration in later life.

Key messages

- Study is limited on the association between childhood socioeconomic status (SES) and social participation, which is important for health among elderly
- We showed that childhood SES was positively associated with social participation in older age in Japan

Sociodemographic characteristics and health of homeless families in the Paris region, France 2013

Stéphanie Vandentorren

S Vandentorren[2,3,4], E Le Méner[1], N Oppenchaim[1,6], A Arnaud[1,4], C Jangal[1,5], C Caum[1], C Vuillermoz[2,3], J Martin-Fernandez[2,3], S Lioret[7], M Roze[2,3], Y LeStrat[4], E Guyavarch[1]
[1]Observatoire du Samusocial de Paris, 75012 Paris, France
[2]INSERM, UMR_S 1136, Pierre Louis Institute of Epidemiology and Public Health, Department of social epidemiology, F-75013, Paris, France
[3]Sorbonne Universités, UPMC Univ Paris 06, UMR_S 1136, Pierre Louis Institute of Epidemiology and Public Health, Department of social epidemiology, F-75013, Paris, France
[4]French Institute for Public Health Surveillance, Saint-Maurice, France
[5]Université Paris Ouest Nanterre La Défense, Laboratoire Espace, Santé et Territoires, 92000 Nanterre, France
[6]Université François Rabelais, Laboratoire Citeres, UMR CNS 7324, 32000 Tours, France
[7]INSERM, UMR1153 Epidemiology and Biostatistics Sorbonne Paris CitéCenter (CRESS), Early determinants of the child's health and development Team (ORCHAD), Paris, F-75014 France, Paris Descartes University, France
Contact: stephanie.vandentorren@ars.sante.fr

Background

The objectives were to estimate the size of homeless family population in Paris region, to describe their living conditions and health, and to analyse the impact of homelessness on children's growth and development.

Methods

In 2013, we conducted a cross-sectional survey on a random sample of homeless sheltered families. Families were interviewed in 17 languages and a nurse took anthropometric measures, blood samples and collected health data from child health reports.

Results

The population size was estimated at 10,280 families. The mean age of parents was 32.6 years. Half were single-parent female families and Ninety-four percent were born outside

France. Most families had experienced housing instability and 94% were living below the poverty line. Malnutrition was a major problem: the prevalence of food insecurity was high (80%), as well as anaemia (50% of mothers and 38% of children), and overweightness (38% of mothers were obese, 32% were overweight and more than 26% of children were either overweight or obese). High rates of depressive disorders were found in homeless mothers (30%) and 20% of children had signs of possible mental health disorders.

Discussion

These first results highlight the growing number of families among the homeless population in Paris region. Homeless families differed from other homeless people regarding social characteristics such as birthplace, low income, single-parent status, and housing conditions. In particular, residential instability is likely to influence major factors associated with vulnerability including schooling, health and access to care.

Key messages

- Growing number of migrants families among homeless population suffered from malnutrition and mental health disorders
- Housing conditions, in particular residential instability could influence access to care and health and nutrition

4.E. Pitch Presentations: Societal challenges requiring strong communication & advocacy

Binge drinking is associated with drinking context in young adults: a cross-sectional analysis

George Kritsotakis

G Kritsotakis[1], M Vassilaki[2], L Chatzi[2], T Konstantinidis[1], E Androulakis[1], H Brokalaki[3], AE Philalithis[2]
[1]Nursing Department, Technological Educational Institute of Crete, Greece
[2]Department of Social Medicine, Faculty of Medicine, University of Crete, Greece
[3]Nursing Department, University of Athens, Greece
Contact: gkrits@staff.teicrete.gr

Background

Alcohol misuse is common in young adults compromising their physical and mental health. This cross-sectional analysis explores the associations of binge drinking with drinking context in all 1st year university students of TEI Crete, Greece.

Methods

Students (N=1121, response rate>95%, mean age 18.31 ± 0.57 years, 54% girls) completed an anonymous questionnaire based on HBSC/ESPAD studies and the ‘Drinking Context Scale-9’ during 2012. Based on the answers, we created four patterns of very high/high alcohol use (Convivial/Coping/Intimate, N = 82, 7.3%; Convivial/Coping, N = 22, 2%; Convivial, N = 255, 22.7%; Coping, N = 32, 2.9%), two of moderate (Moderate, N = 111, 9.9%; Convivial-only Moderate, N = 258, 23%), and one of low alcohol use (N = 361, 32.2%). Those who have consumed in the past month at least 5 drinks in one sitting were categorised as binge drinkers. Logistic regression models were performed adjusted for potential confounders.

Results

Binge drinking was reported by 727 students (64.9%) in the last month. Of the binge drinkers, 45.4% were in the low alcohol, 67.6%-70.2% in the medium alcohol, and 75%-81.8% in high alcohol use pattern (p = 0.000). Boys and girls showed significantly different patterns of drinking. Girls outnumbered boys in the Convivial Moderate (53.4%), Coping (62.5%) and low alcohol use categories (66.2%) (p = 0.000). Compared to the low alcohol use group, odds for binge drinking were: Convivial Moderate (OR = 2.546, 95%CI 1.777-3.646); Moderate (OR = 2.59, 95%CI 1.59-4.2); Coping (OR = 3.26, 95%CI 1.38-7.68); Convivial (OR = 4.28, 95%CI 2.91-6.28); Convivial/Coping (OR = 4.40, 95%CI 1.43-13.5); Convivial/Coping/Intimate (OR = 5.84, 95%CI 2.91-11.71).

Conclusions

Binge drinking is differentially related to drinking context. Odds for binge drinking were gradually increasing from low to high alcohol use and for drinking for multiple reasons, in relation to recreational use. Interventions targeting alcohol misuse are needed at universities.

Key messages

- Binge drinking is differentially related to drinking context in young adults
- Interventions targeting alcohol misuse are needed at higher education institutes

A study on hot-beverages vending machines: what do we daily drink?

Davide Golinelli

G Messina[1,2], S Di Maio[1], S Burgassi[1], R Cardaci[1], D Golinelli2, MA Battaglia[3], D Bezzini[3], N Nante[1,2]
[1]Department of Molecular and Developmental Medicine, University of Siena, Italy
[2]Post Graduate School of Public Health, University of Siena, Italy
[3]Department of Life Sciences, University of Siena, Italy
Contact: davide.golinelli@student.unisi.it

Background

Hot-drinks vending machines are disseminated worldwide and millions of drinks are served every day. Because of a lack of studies on hot-drinks related illnesses, the aim of the study is to identify the presence and load of bacterial species, potentially harmful for consumers, within hot-drinks vending machines.

Methods

This preliminary cross sectional study was carried out in April 2015 at the University of Siena, Italy. 12 samples from 4 hot-drinks vending machines(VM) were taken using a sterile swab; samples were taken from: i) Dispense Area, ii) Nozzle, iii) Glass-Holder. The samples were analyzed in the laboratory and sown on selective terrains. Results were expressed both in terms of average CFU/swab between the samples of the 4 VM, and in terms of CFU/cm2, relying on guidelines of surfaces sanitation, which fix the limit in 50 CFU/cm2. Total Microbial Load(TML) at 36°C and 22°C was assessed for mesophilic and psychrophilic contamination. Descriptive analysis were performed.

Results

All the analyzed surfaces exceeded the fixed limit. Nozzles were the mostly contaminated, showing a bacterial load of 82500 CFU/swab (SD:41662), correspondent to 2063 CFU/cm2.

Dispense Area showed an high presence of bacteria (TML from 28125 CFU/swab to Uncountable Microbial Colonies (UMC) both at 36°C, and at 22°C). The TML of the Glass-Holder went from 1380 CFU/swab to UMC at 36°C, and from 1050 CFU/swab to UMC at 22°C. In particular the nozzle showed a mean of 22770 CFU/swab(SD:27444), correspondent to 569 CFU/cm2 of Staphylococcus spp, and 25399 CFU/swab (SD:35252), correspondent to 635 CFU/cm2 of Enterococcus spp.

Conclusions

Given the high number of CFU/swab and the presence of harmful species that we identified so far, VM may constitute a potential threat for consumer, reason for which further studies are recommendable.

Key messages

- The use of hot beverage vending machines is increasing in the world because of changes in food habits
- Hot beverage vending machines may constitute a potential threat because of high microbial contaminants, including pathogen ones, which we have identified

Are Portuguese adolescents aware of the cyberbullying phenomenon?

Sandra Brochado

S Brochado, S Fraga, S Soares, E Ramos, H Barros
EPIUnit - Institute of Public Health University of Porto, Porto, Portugal
Contact: sandra_brochado14@hotmail.com

Background

Cyberbullying has recently emerged as a problem of violence among young people and is defined as a deliberate and repeated act through the abuse of information and communication technologies. The aim of this study is to characterize and evaluate the prevalence of cybervictimization in young adolescents attending school (7th to 12th grade).

Methods

Adolescents enrolled in public schools of Porto, Portugal, have been invited to participate in a survey on cyberbullying. The information was collected using an anonymous self-administered questionnaire completed at school. Cybervictimization was assessed with a general question, as commonly opted in other similar studies, and also through the Cyberbullying and Online Survey Aggression scale (Center for Disease Control and Prevention). The study protocol was approved by the Ethics Committee of the Public Health Institute of the University of Porto. Present analysis is based on the initial consecutive 1060 participating adolescents (participation rate: 70%)

Results

Using the single general question, the lifetime cyberbullying prevalence was 6.8% (7.1% among girls and 6.4% among boys), being 6.2% for basic school (7th to 9th grade) students and 7.8% for those in secondary school (10th to 12th grade). During the last 12 months, 3.7% of the adolescents reported to have been a victim of cyberbullying. However, when we consider the results obtained from the Cyberbullying and Online Survey Aggression scale, 37.0% of the adolescents reported at least one episode of cyberbullying during the last month.

Conclusion

Mode of inquiring resulted in different estimates of prevalence of the study phenomenon. This also probably reflects the fact that Portuguese adolescents are largely unaware of cyberbullying definition.

Key messages

- Adolescents tend to underreport cyberbullying episodes when a single question is used in the questionnaire
- It is important to raise awareness among adolescents for the cyberbullying phenomenon

A comprehensive meta-analysis on evidence of Mediterranean diet and cardiovascular disease

Stefano Marventano

S Marventano, G Grosso, M Marranzano, A Mistretta
Department G.F. Ingrassia, Section of Hygiene and Public Health, University of Catania, CT 95123, Italy
Contact: stefanomarv@gmail.com

Background

Many studies have reported that higher adherence to Mediterranean diet decreases cardiovascular disease (CVD) incidence and mortality. We investigated the association in prospective studies and randomized control trials between Mediterranean diet adherence and CVD incidence and mortality, including coronary heart disease (CHD), myocardial infarction (MI), and stroke.

Methods

The PubMed database was searched up to June 2014. All prospective cohort studies of Mediterranean diet and risk of cardiovascular-related outcomes were included. The two investigators independently assessed articles. Summary relative risk (RR) with 95% confidence intervals (CI) were estimated by using a random-effects model.

Results

A total of 17 studies were extracted in the systematic review and 11 qualified for the quantitative analysis, which included 730,994 participants and 17,134 cumulative incident cases of CVD (including deaths). Individuals in the highest quantile of adherence to the diet had lower incidence of (RR = 0.76, 95% CI = 0.68, 0.83) and mortality from (RR = 0.76, 95% CI = 0.68, 0.83) CVD compared to those least adherent. A significant reduction of risk was found also for CHD (RR = 0.72, 95% CI = 0.61, 0.86), MI (RR = 0.69; 95% CI = 0.54, 0.8), but not stroke (RR = 0.88; 95% CI = 0.75, 1.03) incidence. Pooled analyses of individual components of the diet revealed that the protective effects of the diet appear to be most attributable to olive oil, vegetables, and legumes.

Conclusion

A Mediterranean dietary pattern is associated with lower risks of CVD incidence and mortality, including CHD and MI. The relative effects of specific essential food groups should be further investigated.

Key messages

- High adherence to Mediterranean diet is associated with reduced risk of cardiovascular disease morbidity and mortality
- Among the single components of the Mediterranean diet, olive oil, vegetable, fruit, and legumes seem to provide the strongest cardio-protective effect

Challenges to public health communication campaigns in multinational settings:a European perspective

Stefania Ilinca

R Rodrigues, K Schulmann, S Ilinca
European Centre for Social Welfare Policy and Research – Vienna, Austria
Contact: ilinca@euro.centre.org

Background

As the prevention of chronic conditions is increasingly recognized at European level as a salient public health issue, the design and roll out of concerted public health communication campaigns addressing risky health behaviors must be adapted to the specificities of a multinational setting. Drawing on expert assessments, we aim to identify and summarize challenges that are specific to health communication in cross-border settings.

Methods

Four expert focus groups were run, each focusing on a specific risk factor (smoking, alcohol consumption, unhealthy diet and sedentary lifestyle). Participants were recruited from different but related fields (public officials, academics, public health and communication experts, representatives of international organization and of EU advocacy groups), each with prior experience and expertise in multinational communication campaigns.

Results

The most immediate challenges identified across focus groups relate to the diversity of epidemiological patterns, cultural underpinnings, social norms, language and communication channels between countries. Equally important is to build a strong campaign coalition and to account for differences in national legislation and available resources. We also identified a set of risk factor-specific challenges: effective messaging (negative for smoking and alcohol, positive otherwise), message complexity (unhealthy diet), involvement of industry representatives (none for smoking, otherwise desirable to various extents) and the importance of existing infrastructure (sedentary lifestyles).

Conclusions

Multinational health communication campaigns must account for the diversity of national contexts, from epidemiological to cultural and institutional aspects, with specific applications for each risk factor.

Key messages

- Recognizing and addressing specific challenges to multinational health communication campaigns is paramount for successful implementation:we summarize them with application to four common risk factors
- Most challenges (pertaining to cultural and institutional idiosyncrasies) are common to all communication campaigns, while some are specific to each risk factor (messaging, industry involvement)

Identifying major trends of health policy in a German city state – using hitherto neglected sources

Claudia Hornberg

C Hornberg, R Fehr
Fakultaet fuer Gesundheitswissenschaften, Universitaet Bielefeld, Bielefeld, Germany
Contact: claudia.hornberg@uni-bielefeld.de

Issue/problem

A city-state like Hamburg (Germany) has many health-related actors and activities, yet when competing with other values, interests and perspectives (e.g., in urban planning debate), health is a "weak" topic. A better understanding of the dynamics of local health policy, including political discussion and parliamentary debate, should be helpful for strengthening the case for health as an issue of public interest.

Approach

A significant part of health-related debate and development over time is reflected by the city's parliamentary documents. In Hamburg, these are kept in a publicly accessible database (Parlamentsdatenbank). Using this database, we investigate the following questions: (i) What is the scope of this database, and how is health represented here? (ii) What trends can be observed over time? (iii) Which health topics are covered?

Results

The database covers five full legislative periods (1997-2015) and contains some 47.000 documents. Searching for health-related information, nearly 13.000 documents were retrieved (annual rate originally around 570 documents, recently topping the 1.000 documents line). These were narrowed down to key documents of local health policy, including major parliamentary inquiries and respective governmental replies. On average, there are >7 such documents related to health and/or disease every year. Using "migrant health" as an example, this was not covered by any major inquiry during the first 2 legislative periods, then covered by 1 in each of the 2 following periods, and by 2 in the most recent period.

Lessons

For 1997 onwards, there is access to a treasure of parliamentary documents, many of which deal with health and health policy issues. The weakness of health as a political issue is a major deficiency, but no great efforts were made so far to examine the role of health in parliamentary debate. We see this database as one valuable source among others for a better understanding of health policy dynamics.

Key messages

- With health being a "weak" topic in political debate, better understanding of the dynamics of (local etc.) health policy should help strengthening the case for health
- Parliamentary documents are a hitherto underutilized source for (local etc.) health policy, calling for exchange and cooperation across localities and their respective depositories

Policy evaluation: a One Health approach

Maurizio Aragrande

M Aragrande[1], M Canali[1], M Bouwknegt[2], L Cornelsen[3,4]
[1]Dept. of Agricultural and Food Sciences, University of Bologna, Bologna Italy
[2]Dept. of Agricultural and Food Sciences, University of Bologna, Bologna, Italy
[3]Centre for Infectious Disease Control, National Institute for Public Health and the Environment, Bilthoven, The Netherlands
[4]Dept. of Global Health and Development, London School of Hygiene and Tropical Medicine, London, UK
Contact: maurizio.aragrande@unibo.it

Issue/problem

Robust and efficient health policies are critical in an increasingly connected context where humans, animals and the environment have complex relationship. Adequate evaluation tools are needed to capture policy effects occurring in different environmental and socio-economic domains. Existing tools assess effects in a mono-disciplinary perspective, but evaluation of complex systems seeks systemic and interdisciplinary perspectives. Since November 2014 the EU Cost Action "Network for the Evaluation of One Health" (NEOH) is bringing together people from various disciplines to elaborate a One Health evaluation framework.

Problem

An advancement is required to understand that policy evaluation should include costs; and that an interdisciplinary evaluation may contribute to a more complete understanding of social costs and benefits. This paradigm change may benefit from methodologies from different fields and closer collaboration between leading scientists to integrate different disciplinary approaches in a wider evaluation context.

Result

To meet this need an operational tool is proposed. Health policy complexity is tackled with a systems approach that combines basic epidemiologic and socio-economic models. The interdisciplinary approach includes a matrix where policy objectives are examined under the relevant disciplinary perspectives bearing in mind the contextual complexity. The application of this tool in policy design (ex-ante) and/or evaluation (ex-post) will provide a more complete identification of effects and methods to enhance effectiveness and efficiency.

Lessons

Removing barriers among disciplines is a prerequisite to promote innovative scientific approaches to serve social aims. Practical operational means, such as the proposed interdisciplinary matrix, may represent real advancement in this direction.

Key messages

- Health policies should include measures for an interdisciplinary approach, targeting first human capital to remove disciplinary barriers in view of future challenges
- Interdisciplinary matrix may promote mutual cooperation among scientists from different discipline to conceive and evaluate health policy according to a global perspective

How "social" are we? Use of Twitter at the 7th European Public Health Conference (Glasgow 2014)

Giacomo Scaioli

G Scaioli[1,2], F Bert[1,2], D Zeegers Paget[1]
[1]EUPHA Office, Utrecht, The Netherlands
[2]Department of Public Health, University of Turin, Turin, Italy
Contact: giacomo.scaioli@unito.it

Background

Twitter has become in recent years one of the most popular social media. A particular application of Twitter is its use during scientific meetings. Since, to date, no studies have described the use of this platform during Public Health conferences, we performed an analysis of the use of Twitter during the 7th European Public Health (EPH) Conference (Glasgow 19–22 November 2014).

Methods

All the tweets published from 21 July to 2 December 2014 with the official hashtag #ephglasgow were included in this study.

Tweets were manually categorised by two independent researchers on the basis of the content of the text and topics covered. Information about author, date, number of retweets and favourites, mention of conference speakers, presence of pictures and/or external links were also retrieved.

Results

A total of 1067 tweets (from 209 single accounts) with the hashtag #ephglasgow were found, of which 86.3% were tweeted during the conference. Conference speakers were mentioned in around 30% of the tweets. Almost 60% of the tweets had a session-related content, while 16% were categorised as ''social tweets'' and 15% as ''logistic''. Of the session-related tweets, one-third had as main topic ''Health inequalities and migrant and ethnic minority health'', while 20% were ''Health policy and health economics'' oriented and 18% about Public Health education, training and research. Pictures were published in 29.7% of the tweets while external links in 13.8%.

Conclusions

The use of Twitter during conferences is a growing phenomenon that allows public health professionals to be informed on all aspects of conference. In present time, it is unavoidable for conference organisers to keep attention and to promote online discussion and conference-related knowledge dissemination. Further studies are needed to highlight potential and issues of this communication tool, especially in the multidisciplinary Public Health field.

Key messages

- Twitter use during scientific events is a growing phenomenon that allows public health professionals to propose questions to the presenters and to debate about topics of interest
- The involvement of attendees in debates is part of the new strategy of scientific societies, like EUPHA, which aims to facilitate and activate a strong voice of the public health network

4.F. Pitch Presentations: Developing and using health data

Developing an indoor air questionnaire for primary schools

Juha Pekkanen

J Pekkanen[1], *S Ung-Lanki*[2]
[1]Department of Public Health, University of Helsinki, Helsinki, Finland
[2]Department of Health Protection, National Institute for Health and Welfare, Kuopio, Finland
Contact: juha.pekkanen@helsinki.fi

Introduction

Questionnaires on symptoms and on perceived quality of the indoor environment are being used to assess indoor problems in schools. Currently used questionnaires and ways to analyze and interpret their results are poorly validated and documented.

Aims and objectives

Our aim was to develop and validate a parent-administered indoor air questionnaires for primary schools and specifically to explore different ways to analyze the symptom data.

Methods

A self-administered questionnaire including 25 questions on child's symptoms in the last 4 weeks was distributed to all parents in 5 primary schools with indoor air problems and in 5 control schools. 1470 (83 %) parents in problem schools and 805 (82 %) parents in control schools returned the questionnaire. Repeatability of the questionnaire was studied in 2 schools, in which 351 (52 %) parents filled in the questionnaire twice with a 2 week interval. Principal component analyses (PCA) was used to develop symptom scores.

Results

17 of the 25 symptoms were selected for the final 6 symptom scores based on the PCA results, differences between problem vs. control schools and repeatability. Simple categorical symptom scores performed almost as well as more complex PCA factor scores in describing differences in symptom prevalence between all of the 10 schools and between the problem and control schools. All symptom scores, except musculoskeletal symptoms, were higher in the problem schools. In multivariate analyses adjusting for the 6 symptom scores, only three scores (respiratory, eye, and general symptoms) differentiated significantly between the problem vs. control schools.

Conclusions

Simple symptom scores appear to capture sufficiently well the between-school differences in symptom prevalence. However, more methodological work is needed to validate and document the analysis and interpretation of the questionnaires on indoor air problems. This is important both for scientific validity and integrity, but also for risk communication.

Key messages

- Symptom scores appear to capture sufficiently well the between-school differences in symptom prevalence
- Better validation and documentation of the questionnaires on indoor air problems and their use is needed

Critically appraising health indicators for policy implementation: an Austrian perspective

Almas Merchant

A Merchant, R Kahlert
Ludwig Boltzmann Institute, Health Promotion Research, Vienna, Austria
Contact: almas.merchant@lbihpr.lbg.ac.at

Issue/problem

Instigated by the EU Health21 policy and responding to the lack of public health monitoring systems, Austria embraced the WHO Health in All Policies approach to develop national Health Targets and their respective indicators. Our project developed a model to assess indicators developed for Health Targets for the state of Vienna. Such a state-specific model has not been created and tested in the past.

Description of the proble:

Since 2011, health indicator development has been an ongoing process in Austria. Our overall research question was 'how to select, define, and critically appraise indicators to measure Austria's Health Targets'? We scoped the literature to identify existing approaches and developed a policy-oriented approach, which we tested on indicators specific to the Viennese Health Targets, and which can be applied to other regions.

Results

Our analysis showed that in selecting and justifying the use of indicators, one should distinguish between types of indicators (e.g. output vs. outcome), reference levels (e.g. individuals vs. organizations), timeframes (e.g. annual vs. long-term), and demands (e.g. methodological vs. political). Thus, we developed a four-tiered approach targeting four criteria: adequate, measurable, feasible, and acceptable (fulfilling theoretical, methodological, practical, and societal needs). For example, the percentage of Cesarean section deliveries is an indicator adequate for capturing infant health, clearly measurable, feasible to collect by hospital reporting systems, and widely accepted by health policy makers. Contrarily, the attendance at birth-preparation classes is inadequate to measure infant health and is not widely accepted. Though, it is feasible to collect and easy to measure.

Lessons

To create a system of high-quality indicators, one must balance different criteria and consider tradeoffs among indicators. Such a system will support policy processes and transfer best practices to other settings.

Key message

- High-quality indicators are crucial in guiding policy implementation. Our model critically assesses health indicators, thus informs policy-makers in making sound decisions on public health programs

Combination therapies and diabetes management new statistical models

Christine Huttin

Results of a new methodology to compare diabetes related amputation rates in OECD countries

Fabrizio Carinci

F Carinci[1], L Uccioli[2], F Carle[3], I Brownwood[4], N Klazinga[4], M Massi Benedetti[5]
[1]University of Surrey, Guildford UK;
[2]Università Tor Vergata, Rome, Italy
[3]Ministero della Salute, Rome, Italy
[4]Organisation for Economic Co-operation and Development (OECD), Paris, France
[5]Hub for International ReSearch, Perugia, Italy
Contact: f.carinci@surrey.ac.uk

Background

Lower limb amputation represents a final event in the natural pathway of many subjects with diabetes. Limited information is available at the international level to monitor results on a global scale. Data collected by the OECD since 2000 has never been included in official publications, due to excess variability.

Methods

In 2014, volunteer experts of the OECD Health Care Quality Indicators Project and the EUBIROD network agreed to conduct a targeted research study on the revision of lower limb amputation rates in diabetes. The group carried out a review of the literature and data sources, followed by a case study on hospital data in Italy and a final discussion. The 2015 OECD data collection sheet requested specific information on numerators (minor and major amputations), denominators (diabetes prevalence and total population), and use of personal identifiers (admission vs patient-based indicator). Results were standardized by sex, age using the total population of countries contributing to each derived indicator. Generalized estimating equations were used to test the existence of temporal trends over the last 15 years.

Results

The OECD data collection of amputation rates was successfully completed in June 2015 by 22 countries. Seventeen reported both major and minor amputations, twelve diabetes prevalence, seven used a personal identifier for the more accurate patient-based indicator. The average standardized rate of major amputations for 2013 was 110 (median 93, range 28–280) per 100,000 people with diabetes. Standardized rates of major amputations among people with diabetes significantly declined over the last 15 years (−5.2 per 100,000 per year, $p<.0001$). Variation across countries was substantially lower for the patient-based definition (CV = 42% vs 77%).

Conclusions

The OECD data collection 2015 allowed the calculation of different definitions of lower extremity amputations in diabetes, including the use of prevalent cases by sex and age bands. The results show a progressive decrease of major amputations among people with diabetes over the last 15 years. More stable estimates observed for patient-based definitions encourage further use of unique patient identifiers for future data collections.

Key messages

- The OECD data collection 2015 showed a significant decrease of major lower extremity amputations among people with diabetes over the last 15 years
- The case of major amputation in diabetes shows how a strengthened information infrastructure may support the adoption of clinically meaningful definitions as valid measures of quality of care

Use and development of the Active Ageing Index locally

Farhang Tahzib

F Tahzib, R Maconchie, J Clay, C Scott, P Baker, R Whitehead
Public Health Research Unit, West Sussex County Council, West Sussex, UK
Contact: farhang.tahzib@westsussex.gov.uk

The Active ageing Index (AAI) was developed to offer a tool for national and European policy makers largely using high level conceptual frameworks. A number of the indicators are locally determined and there is strong case for local uses and comparisons to drive forward the agenda.

This paper highlights experience and learning in potential use of AAI locally at County level in West Sussex, UK, as part of efforts to develop local outcomes and performance indicators

Method

The West Sussex Public Health Research Unit assessed availability of the AAI data at local level and that where there were gaps considered input from local surveys, and where there were still gaps explored estimates via multiple regression methodologies.

Findings

A significant number of gaps were found in availability of data locally. For the 22 different indicators, 6 were directly available locally, with a further 2 extrapolated from available national data, 9 required local surveys, and 5 were estimated by multiple regression analysis (stepwise method).

The local surveys included a County wide telephone survey of 2,800 people 65 years and above, and a face to face survey of 3,917 people 18 years and above across the County. These surveys enabled detailed local measures around a range of community issues, participation, volunteering, fuel poverty, and loneliness and isolation.

Conclusions

The AAI and the local community surveys provided valuable opportunities for distinct and meaningful conversations around untapped potential of older people, options for outcomes and indicators, and potential lines of action by individuals, communities and organisations in the area.

Key messages

- Despite significant limitations in local data the local conversations created in the process were valuable in enabling focus on key priorities and issues for commissioning services and their redesign
- Development of outcomes and indicators in political environments is complex issue and is more an art than a science

Does healthcare utilization differ between respondents to health surveys and the general population?

Janne Agerholm

J Agerholm, D Bruce, B Burström
Department of public health scinces, Karolinska Institute, Stockholm Sweden
Center for epidemiology and community health, Stockholm County Council, Sweden)
Contact: janne.agerholm@ki.se

Background

Survey data is often used for analysis of health status and healthcare utilization in different socioeconomic groups. However, healthcare utilization may differ between respondents and non-respondents, compromising the generalizability of the findings. Individuals with severe health problems, those in lower socioeconomic groups and those living in disadvantaged areas where health problems are more frequent may be more reluctant to answer surveys. Hence, analyses of socioeconomic differences in health status and healthcare utilization based on survey data could potentially be biased.

Aim

This study aims to compare healthcare utilization among respondents to a health survey to that of the total population and to investigate whether analysis of socioeconomic differences in healthcare utilization using survey data could be biased by possible differences.

Method

We use data from the Stockholm Public Health Survey 2010 linked to register data on healthcare utilization in order to investigate differentials by socioeconomic groups and residential areas among respondents. These results are then compared to data on healthcare utilization for the total population of Stockholm County in the same year and in the same subgroups. Differences between socioeconomic groups in the survey population are compared to corresponding differences in the total population using negative binomial- and logistic regression.

Results

Preliminary results suggest that healthcare utilization is generally higher among respondents to the health survey than in the total population, but the increase is the same in most subgroups so relative differences between subgroups are to a large extent comparable in the survey and the total population. One subgroup, individuals born outside Sweden, differ so significantly from this group in the total population that when comparing individuals born outside Sweden with individual born in Sweden the relative difference, based on the survey, is significantly biased.

Key messages

- Healthcare utilization is generally higher among respondents to the health survey than in the general population, but for most subgroups the 95% CI include the mean of the general population
- Foreign born respondents differ so significantly from the same group in the total population that relative differences between this group and individuals born in Sweden will be significantly biased

Health services should collect point of service feedback – patient and staff opinions

Stephen Gill

SD Gill[1]*, JR Redden-Hoare*[2]*, AJ Hughes*[3]*, TL Dunning*[4]*, PJ Dolley*[5]
[1]Research Directorate and School of Medicine, Barwon Health and Deakin University, Geelong, Australia
[2]Nursing, Midwifery & Residential & Aged Care, Barwon Health, Geelong, Australia
[3]Department of General Medicine and School of Medicine, Barwon Health and Deakin University, Geelong, Australia
[4]Centre for Nursing and Allied Health Research, Barwon Health and Deakin University, Geelong, Australia
[5]Safety, Quality and Innovation Unit, Barwon Health, Geelong, Australia
Contact: steveg@barwonhealth.org.au

Background

Point of service feedback (POSF) enables patients to give health services feedback about their experiences during, or immediately after care. Despite the increasing use of point of service feedback, little is known regarding patients' and staffs' opinions of this practice and whether they consider it acceptable or useful. Hence, the current study aimed to determine patient and staff opinions regarding POSF.

Methods

247 inpatients and 221 staff from acute and subacute facilities completed a questionnaire regarding POSF.

Results

Participants indicated that patients should be invited to evaluate health services when they are in hospital or inpatient rehabilitation, and improving services was the most important reason for doing so. Staff indicated that:

- collecting patients' feedback during their stay was an important part of providing care and not an interruption to it (n = 187 of 221, 85%)
- collecting patients' feedback was best done with a variety of methods; talking directly with patients was the most preferred option (n = 161 of 219, 74%)

More patients preferred to:

- give feedback during their stay (51%) than after discharge from care (15%)
- give feedback by talking with someone (45%) than completing a questionnaire (31%)

Being asked to provide feedback during their stay made patients feel valued (59%), stressed (7%), or intimidated (5%). Some patients (14%) were concerned about reprisal from staff if they gave negative feedback.

Conclusions

To the best of our knowledge, this study is the first quantitative assessment of patient and staff opinions regarding POSF. Data indicated that POSF can be acceptable and useful for evaluating health services and should be incorporated into a patient centred approach that allows patients to choose from a variety of feedback options both during and after their stay. To be most useful, POSF should be incorporated into a quality improvement system.

Key messages

- Patients and staff endorsed point of service feedback as acceptable and useful
- To be most useful, point of service feedback should be incorporated into a quality improvement system

Geographic variation in healthcare expenditures: insights from a Danish study

Marie Hauge Pedersen

MH Pedersen, FB Larsen
CFK-Public Health and Quality Improvement, Central Denmark Region, Aarhus, Denmark
Contact: marie.pedersen@stab.rm.dk

Background

Several studies from different countries have documented sizeable geographic variation in healthcare expenditures. However, it remains a pending question how much of this variation is caused by differences in population needs, or, alternatively, service supply.

In the present study, we modelled geographic variation in hospital expenditures per capita controlling for population healthcare needs using data from a large health survey combined with healthcare cost data. In order to explore whether the pattern of geographic variation changed over time, the analysis was repeated with a three-year interval.

Methods

The study is based on the Danish health survey ''How are you?'' from 2010 (n = 33.776) and 2013 (n = 33.285) combined with register-based cost data. Two-part regression models were used to predict geographic variation in hospital expenditures controlling for socio-demography, health behaviour, health status and morbidity.

Results

In 2010, the difference between the areas with the highest and the lowest expenditure was 706 € per capita. After model-based direct standardisation, about half of the areas approached the overall mean expenditure, whereas the other half moved further away. The same was observed in 2013, although, the pattern of geographic variation had changed substantially. Furthermore, in 2010 the overall variation was only slightly smaller after standardisation, whereas in 2013 a substantial reduction from 800 € to 484 € per capita resulted.

Conclusions

Geographic variation in healthcare expenditures were generally attenuated after standardisation, but a considerable variation remained indicating a substantial supply-side effect.

The study has sparked off several management initiatives targeting better understanding and thereby possibly modulation of geographic variation in the healthcare system.

Key message

- The study has sparked off several management initiatives targeting better understanding and thereby possibly modulation of geographic variation in the healthcare system

4.G. Pitch Presentations: Evidence from community-based public health programmes

An Evidence Based Public Campaign Against Waterpipe / Hookah Smoking in Turkey

Tuba Durgut

T Durgut
Tobacco Control, Turkish Green Crescent,Istanbul, Turkey
Contact: erdebirtuba@hotmail.com

Issue

Hookah use has been spreading rapidly in epidemic proportions in Turkey, especially among teenagers and the youth, posing a new threat to tobacco control efforts. Turkey has launched a public campaign against hookah smoking. Both qualitative and quantitative pre-campaign research has been conducted in order to define the perception, attitudes and behaviors of the target population regarding hookah. In this stage we conducted focus group studies and a baseline survey encompassing interviews with 1288 people. As a result of the pre-campaign analyses, we observed that the level of awareness on the dangers of hookah was very low compared to that of cigarettes, that hookah was not perceived as a tobacco product, that it was preferred due its scents and flavors and that many false beliefs were propagated such as its smoke being less dangerous due to passing from water. Measurable objectives of our campaign, campaign strategies and concepts were defined according to the data collected through the pre-campaign analyses. We applied our campaign through the use of TV and radio ads, outdoor materials, brochures, PR studies as well as the use of internet.

Results

Following the campaign we surveyed 1266 people in order to analyze the effectiveness of the campaign. The recall rate of the campaign is high by 73%, in total group.TV ads recalled are evaluated 'believable' 83% and 'effective since it would discourage people from smoking hookah' 77% and also 'taught persons something new' 75%.The awareness level about the negative health effects of smoking hookah significantly increased in post-campaign period. More than half of the people, who recall the campaign say that 'their interest to try smoking hookah diminished' and also 'ads made them to advise people nearby to quit smoking hookah'.

Lessons

Legal and environmental regulations and restrictions are necessary in order to prevent the hookah epidemic in addition to the social marketing and awareness campaigns.

Key messages

- The results of the campaign evaluation show that the campaign was successful in establishing perceived risk of hookah changing perception and attitudes and developing the intention of quitting hookah
- In order to disseminate our campaign, we also produced English, French and Arabic version of the ads. These materials are to be shared with no expectation of copyright fees

Lifestyle intervention in type 2 diabetes: Diabetes em Movimento® community-based exercise program

Romeu Mendes

R Mendes[1,2], N Sousa[2], A Almeida[2], P Subtil[3], F Guedes-Marques[1], VM Reis[2], JL Themudo-Barata[4]
[1]Public Health Unit, ACES Douro I – Marão e Douro Norte; Vila Real, Portugal
[2]Research Center in Sports Sciences, Health Sciences and Human Development (CIDESD), University of Trás-os-Montes e Alto Douro; Vila Real, Portugal
[3]Diabetes Unit, Trás-os-Montes e Alto Douro Hospital Centre; Vila Real, Portugal
[4]Faculty of Health Sciences, University of Beira Interior; Covilhã, Portugal
Contact: romeuduartemendes@gmail.com

Issue/problem

Physical activity is widely recognized as a cornerstone of type 2 diabetes treatment and control. However most individuals with type 2 diabetes do not engage in physical activity on a regular basis. This work aims to present Diabetes em Movimento® a community-based exercise program for lifestyle intervention in patients with type 2 diabetes and the major results of a 4-year experience in Portugal.

Description

Diabetes em Movimento® is an exercise program designed for patients with type 2 diabetes developed in Portugal since 2011. Exercise sessions are conducted on local sports facilities in groups of 30 participants supervised by exercise professionals, three days per week, in 9-months cycles. High applicability exercise strategies are developed with minimum and low cost material resources so that they can be easily applied in other community settings. Sessions comprise walking-based activities (moderate-continuous brisk walking and high-intensity interval walking), weight bearing and chair-based muscle-strengthening exercises, agility/balance activities (small-sided and conditioned team games) and static and dynamic flexibility exercises, during about 75 minutes.

Results

Nine months of this exercise program showed to improved participants' glycemic control, blood pressure levels, blood lipid profile, anthropometric profile (body mass index and waist circumference) and 10-year cardiovascular risk (UKPDS risk engine v2.0) in comparison to a control group. Participants' falls risk (timed up and go test) and physical fitness levels (6-minute walk test, 30-second chair stand test and chair sit and reach test) also improved.

Lessons

A long-term community-based supervised exercise program with high applicability exercise strategies and developed with minimum and low cost material resources, was able to induce significant benefits in metabolic control, cardiovascular risk factors, falls risk and physical fitness in patients with type 2 diabetes.

Key messages

- Community-based supervised exercise programs with group exercise sessions are effective strategies for type 2 diabetes control and related comorbidities
- Exercise programs should be implemented in the long term, with high applicability exercise strategies, and developed with minimum and low cost material resources to ensure sustainability

House of Physical Activity Cards: the Lancet Observatory experience

Gaetana Maria Grazia Stricchiola

A Mannocci[1], GMG Stricchiola[1], A Ramirez[2], A Sinopoli[1], D Masala[3], E De Vito[3], G La Torre[1], PC Hallal[2]
[1]Department of Public Health and Infectious Diseases, Sapienza University of Rome, Italy
[2]Center for Epidemiological Research, Universidade Federal de Pelotas, Brazil
[3]Department of Human, social and health sciences, University of Cassino and Southern Lazio, Italy
Contact: gaetanamariagrazia.stricchiola@uniroma1.it

WHO declares that physical inactivity (PI) is the fourth leading risk factor for global mortality. PI levels are rising in many countries with major implications for the burden of non-communicable diseases (NCDs) and the general health of the population worldwide. The Lancet Physical Activity Observatory (LPAO) is publishing an overview of physical activity and public health in the world, with a goal of reducing the global prevalence of inactivity in adults from 31% to 28% by 2016.

With information from 112 countries available in English and into 26 original languages, the Observatory presents country cards that summarize a given country's physical activity prevalence, surveillance, research and policy status. The cards also present socio-demographics, alongside morbidity and mortality patterns for each country. The Observatory, for most indicators, presents absolute end weighted values, as well as the ranking of countries and estimates scientific productivity in the area of physical activity and public health using several standard research metrics.

Preliminary results indicate that physical activity was present in 32 countries with a specific national plan. In others 46 countries, physical activity was included within their national non-communicable disease prevention or health promotion plans.

In Italy 14,6% of all deaths are due to inactivity, with a contribution of 2.7% to physical activity research worldwide in 2013; approximately 45% of population attaining at least 150 minutes per week of moderate-intensity, or 75 minutes per week of vigorous-intensity aerobic physical activity, or an equivalent combination, according to the international recommendation.

The country cards will serve as an advocacy tool that will help governments, researchers, and societies worldwide to feel accountable for improving health through the promotion of physical activity.

The LPAO will endeavor to ensure country specific cards every two years.

Key messages

- The physical inactivity increases the risk of many adverse health conditions, including major non-communicable diseases (NCDs)
- The Physical Activity Country Cards will be a useful tool for policy makers to monitor the levels of physical activity in the country

The impact of a systematic approach to public involvement in Public Health England

Jonathan Tritter

J Tritter[1], *M Fredriksson*[2]
[1]Aston University, Birmingham UK,
[2]Department of Public Health and Caring Sciences, Health Services Research, Uppsala University, Uppsalla, Sweden
Contact: j.tritter@aston.ac.uk

Despite the recognition of the need to engage with members of the public in order to promote behavioural change there are few systematic approaches to involving members of the public in shaping public health policy, priorities or information. Rather, where non-experts are involved these are typically defined as patients or service users. This paper describes the evolution of a public involvement system in Public Health England and the 1300 members of the People's Panel identified through three national representative samples that participate in a range of activities within the agency to shape priorities, influence information provision and highlight public concerns. The system has evolved and expanded since it was first devised in 2007 by the UK Health Protection Agency. The model includes three different levels of participation extending from responding to online surveys, participating in policy consultations and focus groups to serving on committees and working groups across Public Health England. The paper will explore the idea of the 'impact' of involvement and illustrate this in terms of examples of changes in Agency policy, Agency priorities and published information as well as consider the experience of involved citizens and organisational cultural change. The distinction between engaging with members of the public rather than patients or patient organisations will be explored and has implication for other public health systems. Rather than simply considering issues of demographic representativeness issues of diversity and particularly the voices of members of marginal communities requires a different approach. Approaches to public involvement that recruit from patient populations or use patient organisation as proxies for citizens may incorporate particular interests and biases that undermine opportunities for maximizing relevant impact. The approach and design presented has potential applicability for other public health systems to help ensure relevance and impact of advice provided by public health bodies and the likelihood of changes in society.

Key messages

- The Public Health England People's Panel demonstrates the value of engaging with members of the public rather than patients or patient organisations
- Systematically involving members of the public in shaping priorities, policies and the content and route for communication relevant to marginal communities

Advocacy for amending laws that exclude low income and unemployed people from health insurance

Nesime Salioska

N Salioska
Association ROMA S.O.S, Prilep, Macedonia
Contact: snesime@yahoo.com

In November 2012, the Macedonian Constitutional Court abolished a law adopted in 2011, which obliged unemployed and low income persons to re-register their health insurance before a fixed deadline by submitting a statement of income for the previous year. The Court's decision has not been appropriately implemented, which resulted in the exclusion of about 50% of the people insured with the Health Insurance Fund (HIF) from the public health system in 2013 and 2014 year.

The association ROMA S.O.S. implemented an advocacy campaign to ensure proper implementation of the decision of the Constitutional Court and to remedy the exclusion of low income groups from health insurance. Advocacy tools included submitting interventions to the Ministry of Finance, Ministry of Health and the Ombudsman, and initiating a legislative amendment by organizing meetings with the Parliamentary Commission for Health, the Committee on Labor and Social Policy, and two members of the ruling party. Efforts also focused on raising public awareness by involving the media, citizens, associations, and experts. The advocacy campaign coincided with the period of new national-level elections.

Our advocacy efforts eventually forced the ruling party to include the proposed legislative amendments as a priority on their agenda. Further to a governmental meeting in October 2014, the Ministry of Finance submitted the amendments to Parliament.On 1 December 2014, the Parliament adopted the amendments to the Law on Contributions to Compulsory Social Insurance and abolished the obligation for citizens to submit a statement of income. The Health Insurance Fund is responsible for checking the income of citizens in collaboration with the Public Revenue Office and in that way to establish their right to health insurance.

The power of targeted and well-timed advocacy can abolish laws and practices and contribute to the realization of health rights of vulnerable individuals.

Key messages

- Legislative tools can create both obstacles to and remedies for citizens in access to the health system and implementation of the right to health
- Citizens'mobilization can positively influence the health policy priorities of governments and legislators

Social marketing to reduce preventable injuries in BC, Canada

Ian Pike

I Pike[1,2], K Lafreniere[3]
[1]Department of Pediatrics, Faculty of Medicine, University of British Columbia, Canada
[2]BC Injury Research and Prevention Unit, Child and Family Research Institute, BC Children's Hospital, Vancouver, Canada
[3]The Community Against Preventable Injuries, Vancouver, Canada
Contact: ipike@cw.bc.ca

Purpose

To determine the efficacy of a social marketing campaign to raise awareness, change attitudes and behaviours to reduce the number and severity of injuries among citizens aged 25–54 in British Columbia, Canada.

Methods

A two-year, two-phase formative evaluation comprised focus groups and on-line survey. Phase I consisted eight focus groups of 6–8 participants aged 25–54 throughout BC. The goal was to understand perceptions, attitudes, knowledge and behaviours, and to understand potentially effective injury prevention messages and channels. Phase II comprised on-line survey of 300 citizens 24–54 in May, 2009. Demographic, knowledge, attitudes and behaviour variables around injuries served as pre-campaign baseline measures.

A multi-year, multi-faceted campaign, utilising TV, radio, print, signage, guerrilla events and social media launched in June, 2009. Data from random samples $(n = 700)$ were gathered at 4-month intervals and used to monitor changes in awareness, attitudes, behaviours, together with changes in injury deaths and hospitalizations.

Results

Approximately 50% of BC population (2 million) were reached weekly, and over 100 million media impressions were generated during the 6-month launch period. 50,000 visited http://www.preventable.ca. Campaign recall increased 45%; TV ads were considered informative, relevant, credible and generated self-reflection with no advertising fatigue. Positive shifts (5–10%; $p < 0.05$) in attitudes and behaviours; significant differences persisted over 5-years in awareness, attitudes and behaviours between those who saw the campaign vs those who did not. Reduction in injury deaths was associated with the campaign.

Conclusions

A social marketing campaign resulted in significant changes in awareness, attitudes and behaviours, which was associated with decreased injury mortality.

Key messages

- Campaign recall increased 45%; TV ads were considered informative, relevant, credible and generated self-reflection with no advertising fatigue
- A social marketing campaign resulted in significant changes in awareness, attitudes and behaviours, which was associated with decreased injury mortality

Setting specific legal frameworks for prevention and health promotion - What do we need?

Ulla Walter

U Walter[1], U Castedello[2], C Gaede-Illig[2], B Kruckenberg[1], L Schauermann[1], K Volkenand[1], J Weber[1]
[1]Hannover Medical School, Institute for Epidemiology, Social Medicine and Health Systems Research, Hannover, Germany
[2]BBI Gesellschaft für Beratung Bildung Innovation mbH, Berlin, Germany
Contact: walter.ulla@mh-hannover.de

Throughout the last decade, prevention and health promotion (PHP) were strengthened by some European countries, including their legal integration. Nevertheless, it is controversially discussed whether established legislation represents a stable foundation for PHP promotion. In the light of the drafted cross-setting German Prevention Act this study aims (1) to assess setting specific legal PHP regulations, guidelines and recommendations, (2) to appraise their implementation and routines and to (3) identify respective need for action.

Internet based research on legal PHP regulations and guidelines concerning community quarters (CQs), kindergarten, schools and long term care facilities (LTCFs) located on supranational, EU, German federal, state and community level and commentarial literature. 81 qualitative interviews were conducted within ministry/public administration, alliance/institutional and scientific context. Using MAXQDA software, the transcripts were analyzed.

PHP regulations differ substantially among federal states and between settings. Based on historical and professional developments the use of terms differs widely. The constitutional obligation for public assistance and a variety of regulations for political areas and local affairs provide a rather unspecific legal PHP framework for CQs. For kindergarten, schools and LTCFs existing federal regulations are focused on specific preventive activities. Newer legislation tends to incorporate health promotion. PHP is considered important across settings but frequently seen as an additional task to be performed besides other duties. Its implementation often depends on the commitment and skills of the local staff.

At community level, PHP must become an intersectional mainstream task. At all federal levels, PHP shall become part of the legal acts and institutional policies. Existing PHP regulations have to be revised and their implementation should be supported by additional resources.

Key messages

- A nationwide implementation of prevention and health promotion must be joined by its integration into federal law, setting specific regulations and institutional policies
- The conducted research revealed substantial inter-setting differences with regard to the legislative and practical implementation of prevention and health promotion and thus a need for unification

Social marketing to reduce preventable injuries in BC, Canada

Ian Pike

I Pike[1,2], K Lafreniere[3]
[1]Department of Pediatrics, Faculty of Medicine, University of British Columbia, Canada
[2]BC Injury Research and Prevention Unit, Child and Family Research Institute, BC Children's Hospital, Vancouver, Canada
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[1]Hannover Medical School, Institute for Epidemiology, Social Medicine and Health Systems Research, Hannover, Germany
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At community level, PHP must become an intersectional mainstream task. At all federal levels, PHP shall become part of the legal acts and institutional policies. Existing PHP regulations have to be revised and their implementation should be supported by additional resources.

Key messages

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- The conducted research revealed substantial inter-setting differences with regard to the legislative and practical implementation of prevention and health promotion and thus a need for unification

4.H. Pitch Presentations: Inequalties around Europe

Implementation and equity trends in twenty-five years of European mammography screening programmes

Silvia Deandrea

S Deandrea[1], A Molina[2], J Lopez-Alcalde[1], J Moreno[2,4], L Neamtiu[1], R Peiró-Pérez[2,2], A Uluturk[1], D Lerda[1], D Salas[2]
[1]European Commission, Joint Research Centre (JRC), Institute for Health and Consumer Protection (IHCP), Ispra VA, Italy
[2]Fundación para el Fomento de la Investigación Sanitaria y Biomédica (FISABIO)-Salud Pública Área de Investigación en Cáncer y Salud Pública, Valencia, Spain
[3]CIBERESP, Madrid, Spain
Contact: silvia.deandrea@ec.europa.eu

Background

The aim is to describe the implementation of population-based breast cancer screening (BCS) programmes in the EU since their initiation based on the European Guidelines for Quality Assurance in Breast Cancer Screening and Diagnosis.

Methods

The following surveys were consulted: International BCS Network (IBCSN) (1990); IBCSN and European Network of Pilot Projects for BCS (1995); European Cancer Network (2000); European Network for Information on Cancer and Report on the implementation of the Council Recommendation (2005-2007); European Commission Initiative on Breast Cancer (ECIBC) (2010-2012); European Partnership Against Cancer inequality survey (EPAAC) (2013), ECIBC and EPAAC surveys updates (2015). Organisational (implementation, coverage) and equity variables (free of charge, social groups not included in the target population, interventions to tackle inequalities in access) were analysed. A comparative descriptive analysis was performed.

Results

The number of countries with BCS programmes and responding to the surveys grew from 5 in 1990 to 16 in 1995 and 2000, 18 in 2007 and 27 in 2015. Up to now, in most countries more than 80% of eligible women are actually invited for a mammogram every other year.

Equity variables were not available in all surveys. Results show that 95% of 22 in 2013 and 96% of 27 in 2015 are free of charge; moreover 55% of 22 in 2013 and 56% of 27 in 2015 had social groups not included in the target population; finally 82% of 22 in 2010–2012, 50% of 22 in 2013 and 67% of 27 in 2015 performed interventions to tackle inequalities in access.

Conclusions

Population-based BCS is now in place or planned in nearly all the EU Member States. Future challenges will be to maintain the coverage reached despite the austerity, to improve access through a universal and free access to reduce inequalities, and to increase safety through the implementation of evidence-based tailored protocols and interventions to tackle inequalities.

Key messages

- A good population coverage by organised breast cancer screening programmes is nearly reached in Europe

- Continuous efforts for reducing inequalities and enhancing the accessibility are needed

Trends in inequalities in amenable mortality in England: 1990–2010

Megan Yates

M Yates[1], R Dundas[1], SV Katikireddi[1], M McKee[2], JP Pell[3], D Stuckler[4], AH Leyland[1]
[1]MRC/CSO Social and Public Health Sciences Unit, University of Glasgow, UK
[2]European Observatory on Health Systems and Policies, London School of Hygiene and Tropical Medicine, UK
[3]Institute of Health and Wellbeing, University of Glasgow, UK
[4]Department of Sociology, University of Oxford, UK
Contact: m.yates@sphsu.mrc.ac.uk

Background

Equitable healthcare makes an important contribution to mitigating socioeconomic inequalities in health. Amenable mortality is an internationally used measure of health system performance, indicating deaths which in theory should not occur given effective healthcare. We studied trends in socioeconomic inequalities in amenable mortality over two decades in England.

Methods

Mortality records and relative deprivation measures from 1990 to 2010 are available at small area level (measured using an adjusted Carstairs index). Amenable mortality (AM) was defined on the basis of previously published definitions, excluding ischaemic heart disease. Age standardised rates (ASR) were calculated for people aged 0–74 years. Relative indices of inequality (RII) were calculated for each year, stratified by sex, using Poisson regression. The RII is obtained by regressing the outcome on the standardised deprivation rank and can be interpreted as the relative risk for AM of the hypothetically most compared to the least deprived, taking into account the whole socioeconomic distribution.

Results

There were 1,074,573 amenable deaths for people aged 0–74 years. In 1990, 2000 and 2010 the ASR for men in the most deprived (MD) decile were 266, 242 and 155 per 100,000 respectively; in the least deprived (LD) 127, 106 and 63 per 100, 000. Equivalent rates for women in the MD were 212, 184 and 131 per 100,000 and in the LD, 130,107 and 64 per 100,000.

The RII for men in 1990 was 2.21 (95% CI = 2.13-2.30); in 2000 RII = 2.44 (95% CI = 2.34-2.55); and in 2010 RII = 2.83 (95% CI = 2.69-2.98). The RII for women in 1990 was 1.67 (95% CI = 1.60-1.74); in 2000 RII = 1.79 (95% CI = 1.72-1.87); and in 2010 RII = 2.18 (95% CI = 2.08-2.30).

Conclusion

Inequalities in amenable mortality have increased over time, suggesting quality of care may not be improving equally for those living in more deprived and less deprived areas. The question remains as to the extent to which amenable mortality measures health system performance.

Key message

- Socioeconomic inequalities in amenable mortality have increased in England over time. This trend may reflect changes in health policy; comparative analysis with other European countries is required

Trends in educational inequalities in smoking and sporting inactivity in Germany from 2003 to 2012

Jens Hoebel

J Hoebel, LE Kroll, T Lampert
Department of Epidemiology and Health Monitoring, Robert Koch Institute, Berlin, Germany
Contact: j.hoebel@rki.de

Background

Declining rates of smoking and sporting inactivity have been observed in several European countries. The aim of this study was to examine whether these trends can be found in all educational groups, and how educational inequalities in smoking and sporting inactivity developed over time.

Methods

Data were derived from three cross-sectional population-based telephone surveys of adults in Germany carried out in 2003, 2009 and 2012 ($n = 34{,}251$; age = 30–69 years). Participants were asked about their smoking behaviour and engagement in sports. Educational level was measured with the CASMIN classification of educational qualifications. The Slope Index of Inequality (SII) and the Relative Index of Inequality (RII) were calculated to investigate time trends in absolute and relative educational inequalities in smoking and sporting inactivity, stratified by survey year and adjusted for age and sex.

Results

Among the highly educated, the prevalence rates of smoking and sporting inactivity declined significantly between 2003 and 2012 ($p < 0.001$). Among the low-educated, these rates remained stable over time. Relative educational inequalities in smoking increased significantly between 2003 (RII = 1.81; 95% CI = 1.57–2.08) and 2012 (RII = 2.21; 95% CI = 1.94–2.53; p-trend < 0.05), whereas no significant trend could be established for absolute inequalities in smoking. With regard to sporting inactivity, absolute and relative inequalities were found to have increased significantly from 2003 (SII = 29.3; 95% CI = 24.2–34.5; RII = 2.04; 95% CI = 1.79–2.32) to 2012 (SII = 42.1; 95% CI = 38.0–46.1; RII = 3.38; 95% CI = 2.99–3.83; p-trend < 0.001, respectively).

Conclusions

The findings suggest that trends of declining rates of smoking and sporting inactivity in Germany were restricted to the higher educated. Consequently, educational inequalities in these lifestyles have increased since 2003. Interventions to promote healthy lifestyles should be better targeted to educationally disadvantaged groups.

Key messages

- Educational inequalities in smoking and sporting inactivity among adults in Germany have increased between 2003 and 2012
- Interventions to promote healthy lifestyles should be better targeted to educationally disadvantaged groups

The adaptive behavior of homeless children in Paris region, France, in 2013

Stephane Darbeda

S Darbeda[1], B Falissard[2], M Orri[2], C Barry[2], S Vandentorren[3]
[1]Recherche Médicale (INSERM), Department of Psychiatry and Addictive Medicine, AP-HP Bichat Claude Bernard Hospital, Paris, France)
[2](UMR-1178 Mental Health and Public Health, Institut National de la Santé et de la Recherche Médicale (INSERM), Paris Sud University, University Paris Descartes, Paris, France)
[3]Observatoire du Samu Social de Paris, UMR-S 1136 Social Epidemiology, Institut National de la Santé et de la Recherche Médicale (INSERM), Sorbonne Universities, University Pierre and Marie Curie, Paris France
Contact: stephane.darbeda@gmail.com

Introduction

The number of families housed by the Samu Social de Paris increased by 5 between 1999 and 2009. Previous studies have revealed developmental problems in children of homeless families.

Objectives

To describe the adaptive behavior status within homeless children in Paris region, France, and highlight factors associated with developmental delay.

Methods

In 2013, a random survey was conducted among homeless families housed in emergency centres for asylum-seekers, emergency housing centres, social reinsertion centres and social hotels in the Paris region. A bilingual interviewer and a psychologist conducted the survey in 17 languages. A nurse took the anthropometric measures and collected health data from child health and immunization cards. For children aged 0–5 years old, mothers (or fathers when mothers were absent) were asked about the children's adaptative behavior using the Vineland Adaptative Behavior Scales, Second Edition (Vineland-II).

Results

The built random sample consisted in 801 families including 557 in which the selected child was 0–5 years old, which represents 11448 children (95% CI = 10354–12541). The estimated mean (±SD) of the composite score of Vineland-II is 75.38 (±12.03) (95% CI = 74.07–76.70) which mean that 9259 children aged 0–5 years old (95% CI = 7684–10833) have a developmental delay. The most associated factor with the decrease of the Vineland-II score is the age ($p < 0.0001$) in the linear multivariate model.

Conclusion

The ENFAMS survey reveals large developmental problems among homeless children in Paris region. The more the children are exposed to homelessness, the more the adaptive functioning is impaired.

Key messages

- The more the children are exposed to homelessness, the more the adaptive functioning is impaired
- The ENFAMS survey reveals large developmental problems among homeless children in Paris region, France

Not seeking healthcare pathways among homeless women living with children in Paris region in 2013

Cécile Vuillermoz

C Vuillermoz[1,2]*, S Vandentorren*[1,2,3]*, M RozeM*[1,2]*, P Chauvin*[1,2]
[1]INSERM, UMRS 1136, IPLESP, ERES, Paris, France
[2]Sorbonne Universités, UPMC Univ Paris 06, UMRS 1136, IPLESP, ERES, Paris, France
[3]Observatoire du Samusocial de Paris, 75012 Paris
[4]French Institute for Public Health Surveillance, Saint-Maurice, France
Contact: cecile.vuillermoz@inserm.fr

Background

Homeless women encounter many barriers to healthcare. While their health status is poor, reasons for not seeking heathcare are multiple, such as multiplication of shelter moving, lack of social support, low daily mobility and poor financial resources. The aims of our study were to describe the giving up care among homeless women living with children and to study factors associated with it.

Methods

Homeless women with children (N = 764) were interviewed during the ENFAMS survey, a representative survey of homeless families conducted by the Observatoire du Samu Social in Paris region during winter 2013. Structural equation modeling was used to estimate the impact of various factors on women's giving up care over the last year. Latent variables taken into account were: health status, addictions, migration status, parental status, housing conditions, financial resources, daily mobility, social support, victimization.

Results

Among homeless women, 25.5% (95%CI[21.9-29.1]) had given up healthcare over last year. They had mainly given up the general practitioner (29.5% 95%CI [21.4-37.7]) or the medical specialist (45.2% 95%CI[37.0-53.4]). The main reason of not seeking healthcare was financial (59.6% 95%CI[51.5-67.7]). In addition to mental health status, the role of financial resources and daily mobility were particularly important in the pathways model tested.

Discussion

The proportion of people who have given up care was similar in French general population. This study demonstrates that the using structural modelling may help to disentangle the multiple factors associated with the not seeking health care of homeless women. It allows public policies and programmes better to reach this population, and to develop targeted health fare services and to prevent some of them (e.g. decreasing the frequency of their shelter moving).

Key messages

- One quarter of homeless women had given up healthcare over last year
- Factors associated with the not seeking healthcare of homeless women were multiple

Educational inequalities in offspring birthweight: cohort study of young mothers in Scotland, 2007–12

Catherine Stewart

C Stewart, AH Leyland
MRC/CSO Social & Public Health Sciences Unit, University of Glasgow, Glasgow, UK
Contact: Catherine.Stewart@glasgow.ac.uk

Background

Poor maternal educational attainment is associated with an increased risk of having low birthweight offspring. Such babies are at a greater risk of future adverse health and economic outcomes shown to be associated with low birthweight. We investigate whether educational inequalities in offspring birthweight status persist after adjustment for maternal childhood health, educational and antenatal risk factors in a population of publicly-funded female school leavers in Scotland during the period 2007–2012.

Methods

Linked education and health data for first-time pregnant females aged 12–26 years were drawn from a wider cohort of school leavers during the period 2007–11. Data were further linked to offspring birth records. Logistic regression modelled the effect of educational attainment on odds of having a low birthweight baby. Attainment was measured using tariff points, ranging from 1 to 120 per individual subject depending on course level and award attained. A total score was calculated by summing all points accumulated during school. Associations were observed before and after adjustment for covariates. Maternal and offspring multiple-births, stillbirths or births resulting in neonatal death and known emigrants after school-leaving were excluded.

Results

In the population of 9,955 first-time mothers, 575 (5.78%) had a low birthweight (<2500g) baby. Educational attainment was significantly associated with odds of having a low birthweight baby: odds decreased by 19% (OR = 0.81, 95% CI = 0.74-0.90) for a one standard deviation increase in total tariff score. The effect of attainment on low birthweight status was only partly explained by maternal birthweight, childhood health and other educational risk factors (OR = 0.86, 95% CI = 0.74-1.01). Although the association between attainment and offspring birthweight became non-significant when offspring antenatal factors were added (OR = 0.91, 95% CI = 0.74-1.11), only 53% of the effect was explained.

Conclusion

Targeting young women during pregnancy and improving antenatal risk factors, e.g. smoking, has the potential to contribute to a decrease in educational differences in the risk of low birth weight offspring.

Key messages

- Educational inequalities in birthweight exist in first-born offspring of young mothers in Scotland
- There is a persisting transgenerational effect of maternal birthweight on offspring birthweight

The change of the distribution of health human resource imbalance in 2002–2012: the case of Turkey

Sarp Uner

S Uner[1]*, M Yardim*[1]*, S Mollahaliloğlu*[2]
[1]Institute of Public Health, Hacettepe University, Ankara, Turkey
[2]Public Health Department, Yildirim Beyazit University Medical Faculty, Turkey
Contact: sarpuner@hacettepe.edu.tr

Background

Turkey, which suffers from both undersupply of physicians and nurses-midwives and imbalanced distribution of health care personnel, has been developing and implementing various policies in order to solve this problem. The Ministry of Health

(MoH) launched the Health Transformation Program in 2003 for effective, efficient and fair provision of health care services for all people. This study aims to take a closer glance at the impact of policies implemented for the reducing of imbalance of the distribution of health human resources for the last ten years in Turkey.

Methods

MoH registries were used to reach the provincial distribution of active health personnel. Distributional imbalance was analyzed by using Lorenz curves and Gini coefficient (GC) for the years 2002, 2005, 2008 and 2012. Eighty-one provinces consisted of the analysis units and number of health personnel and population of each province have been taken into account for the selected years.

Results

Geographical imbalances for health care professions have shown a noticeable decrease along the ten years period. GC was 0.24 for specialists' distribution in 2002, but it fell down gradually to 0.22 in 2005, 0.18 in 2008 and finally 0.12 in 2012. Similarly these GCs were 0.21, 0.23 and 0.23 for general practitioners, nurses and nurse plus midwives respectively in 2002. In 2012 the GCs for the same professionals were calculated as 0.10, 0.15 and 0.17 respectively.

Conclusion

The findings indicate that the policies, which have been implemented for the distribution of the health care personnel in Turkey, have yielded positive results. Yet, it is obvious that these results are not due to a single action merely. In this context, it is essential to further improve the existing implementations, search for the instruments and factors that will further satisfy and motivate health care personnel, and to continue developing and implementing comprehensive policies aiming proper solutions.

Key messages

- Gini based metrics can give more accurate results, for monitoring health human resources interventions
- Health human resources distribution issues are problems which can be solved in the long term

Oral Health Support Center in Porto, Portugal

Francisco Pavão

J Pavão, A Simões
Centro de Estudos Mundo a Sorrir, NGO Mundo a Sorrir, Porto, Portugal
Contact: projetocaso@mundoasorrir.org

Issue

Portugal finds itself facing high levels of Oral diseases that can have a significant impact on quality of life when they compromise basic functions (e.g. chewing, talking) and overall health.

The district of Oporto (Portugal) has 1/3 of the Portuguese Beneficiaries of the Social Insertion Income. Shaky employment and unemployment, are important factors of poverty and social exclusion. NGO Mundo a Sorrir elected this as the priority area of intervention of the Oral Health Support Centre (CASO), providing to the neediest populations oral health treatments that will contribute to improve their life conditions and increase local development.

Problem

CASO is the only Social dental clinic in Portugal in which all dentists work voluntarily. Implemented in 2009 in the city of Oporto with the main purpose of providing medical and dental treatment for the low-income population.

Can a solid oral health prevention be linked to a higher self-esteem and better health conditions? Could it facilitate the inclusion of some individuals into the society?

Results

This project beneficiated more than 3.000 patients, performed 18.848 treatments and 156 prosthetics rehabilitations. A prospective analysis Social Return on Investment (SROI) was used to measure the impact of the provision of medical and dental care in the lives of people without access to them. The SROI ratio obtained was 1:3.89 euros (per 1 euro invested, there is a social return of 3.89 euros). This allowed us to identify changes generated by this intervention: increased knowledge about oral health, improved self-esteem health and psychological well-being, improvement of interpersonal/social relationships and greater employment chances.

Lessons

This project involves the stimulation of public and private organizations, to acknowledge the needs of Oral Health in Portugal and how its promotion contributes to the improvement of public health. On 18th April 2015 we replicated this project in Braga, with the partnership of the City Council.

Key message

- "I felt like I was still young, to be with my mouth so badly treated. I still would be with no teeth because financially I couldn't. The end of treatment was the best moment I had in my life"

4.I. Pitch Presentations: Infectious diseases

Increasing knowledge on Infection Prevention and Control during Ebola outbreak in Sierra Leone

Renata Gili

R Gili[1,3], M Foletti[2,3], PL Ingrassia[2], L Ragazzoni[2], G Scaioli[1], P Narcisi[3], F Bert[1], MR Gualano[1], F Della Corte[2], R Siliquini[1]
[1]Department of Public Health Sciences and Paediatrics, University of Turin, Turin, Italy
[2]Department of Translational Medicine, University of Piemonte Orientale, Novara, Italy
[3]Rainbow for Africa Onlus non-profit organization, Turin, Italy
Contact: renata.gili@unito.it

Background

The lack of trained personnel in the Ebola Virus Disease (EVD) outbreak response in West Africa has been acknowledged, therefore specific training programs have become one of the priorities according to the WHO. Many training courses have been implemented but very little evidence exists on whether they actually increase knowledge of healthcare workers.

Objectives

The program, performed in April 2015 using specific context-based approaches, aimed to increase the knowledge on Infection Prevention and Control principles of healthcare workers in Port Loko District. Participants were divided in two main groups according to their job (hospital or community health workers) and a different training course was offered to each group. To assess the program, a before-after study was conducted. Moreover, the rate of satisfaction among the participants was evaluated.

Results

Overall, 57 hospital workers and 18 community health workers attended the course and completed a questionnaire (different for the two groups) before and after the lessons. Results, expressed as percentage of the highest score achievable in the questionnaire, showed a statistically significant improvement ($p < 0.001$) after the training than before. The average scores in the first group increased from 52.4% to 67.3%. Similarly, in the second group the average scores were 47.2% before the training and 70.1% after. Almost 90% of the participants declared to be satisfied with the program and all of them believed it would have increased their professional skills.

Conclusions

Using specific context-based approaches to train the healthcare workers involved in the EVD outbreak response could be an effective way to increase their knowledge. In line with recommendations from international and European reference organizations, and since these methods are well-accepted by the beneficiaries, it would be advisable to reinforce training programs, as educational gap still exists at several level.

Key messages

- Using specific context-based methods to train healthcare workers involved in the EVD outbreak response could be an effective way to increase their knowledge on Infection Prevention and Control
- In line with recommendations from international and European reference organizations, we encourage continuing and reinforcing training programs, as educational gaps still exists at several level

Knowledge and perceptions of Dutch public and healthcare workers regarding Ebola: a 2014 survey

Lianne Schol

LGC Schol[1], M Mollers[1], C Swaan[1], DJMA Beaujean[1], A Wong[2], A Timen[1]
[1]Centre for Infectious Disease Control, National Institute for Public Health and the Environment (RIVM), Bilthoven, the Netherlands
[2]Department of Statistics, Informatics and Mathematical Modelling, National Institute for Public Health and the Environment (RIVM), Bilthoven, The Netherlands
Contact: lianne.schol@rivm.nl

Background

The Ebola outbreak in West Africa triggered extensive preparedness and control measures in countries to reduce the risk of imported cases and secondary transmission. To promote adequate preventive behaviour, public health authorities must know how people perceive Ebola related risks and whether they understand the provided information. Our study aimed to investigate the level of knowledge, perceptions, use of information sources and information needs of the general public and healthcare workers (HCW) in the Netherlands with regard to Ebola.

Methods

An online survey was administered to a representative sample of the Dutch general public and to three groups of HCW in December 2014. The survey was based on the Health Belief Model and Protection Motivation Theory.

Results

In total, 526 persons of the general public and 760 HCW participated in our study. The mean knowledge sum score (range 0–15) of the HCW ($m = 13.3$; $SD = 1.4$) was significantly higher than that of the general public ($m = 10.8$; $SD = 2.0$) ($p < 0.001$). No significant difference was found in perceived severity ($m = 4.7$ for both groups) and perceived susceptibility ($m = 2.9$ for both groups). The perceived fear of the general public ($m = 2.5$; $SD = 0.8$) was significantly higher than that of the HCW ($m = 2.4$; $SD = 0.7$) ($p < 0.001$). All respondents primarily used television to obtain information (general public 90%; $n = 474$ vs HCW 91%; $n = 694$). The additional need for information of the HCW ($m = 0.74$; $SD = 0.4$) was significantly higher than that of the general public ($m = 0.69$; $SD = 0.5$) ($p < 0.05$).

Conclusion

While Ebola was perceived severe, the outbreak did not lead to excessive fear or perceived susceptibility for developing the disease among the Dutch general public and HCW. Nonetheless, our research showed that the knowledge with respect to human-to-human transmission of Ebola is low, while this is crucial to understanding of and complying with preventive measures. Our study revealed priorities for improving crisis communication.

Key messages

- The Ebola outbreak in West Africa did not lead to excessive fear or perceived susceptibility among the Dutch general public and HCW
- Our study revealed priorities for improving crisis communication as knowledge with respect to human-to-human transmission of Ebola appears to be lacking among the Dutch general public and HCW

Developing a training course on risk assessment of infectious diseases for travelling students

Angela Bechini

A Bechini, M Chellini, L Indiani, M Levi, P Bonanni, S Boccalini
Department of Health Sciences, University of Florence, Florence, Italy
Contact: angela.bechini@unifi.it

Introduction

Each year an increasing number of European (EU) students crossed national borders for study or leisure purposes. Students are often not aware of the risk of acquiring infectious diseases (ID) during a travel. Objectives: To develop a training course assessing the risk of infection to which travelling students (TS) are exposed, highlighting the importance of the adherence to prevention measures, including immunizations against measles, meningococcal meningitis and hepatitis A (HAV).

Methods

A systematic review was conducted using relevant databases and extended with articles from references and related citations (English/Italian language). CDC, ECDC, Eurosurveillance and Epicentro (ISS – Italian National Health Institute) websites were also consulted. Outbreaks or case reports involving TS (13-24 years), occurred worldwide and published in the period 2000–2015, were finally included. Titles, abstracts, and full texts of relevant papers were screened by two reviewers, independently.

Results

A total amount of 61 articles were preliminary analyzed (17, 34 and 10 for meningococcus, measles and HAV, respectively). Outbreaks involving TS were documented in many countries and evidence based prevention strategies were synthesized as recommendations. A training course has been developed addressing TS.

Conclusion

Infectious diseases in TS can be prevented through the implementation of preventive measures among which vaccination is the most effective. In Europe measles containing vaccines are offered with a two dose schedule in most countries but vaccination coverage in adolescents is very low. HAV vaccine is generally recommended for high risk groups and travelers to endemic areas. Recommendations for TS should include the immunization against all meningococcal diseases (A, B, C, W-135, Y). EU students, before departure, should attend an educational course in order to increase their awareness on the risk of infection during a study programme abroad.

Key messages

- Travelling students should be aware of the risk of acquiring infectious diseases such as measles, hepatitis A and meningococcal meningitis
- Training courses and health programmes in schools are the best way to increase the adherence to preventive measures towards infectious diseases in travelling students

Occurrence of emerging pathogens in wastewater using a molecular method

Silvia Bonetta

E Carraro[1], Si Bonetta[1], Sa Bonetta[1], E Lorenzi[2], M De Ceglia[2], C Pignata[1], G Gilli[1]
[1]Department of Public Health and Pediatrics, University of Torino, Torino, Italy
[2]Società Metropolitana Acque Torino S.p.A., Torino, Italy
Contact: silvia.bonetta@unito.it

Human pathogens from enteric origin are a potential contamination risk transmitted through soil, agriculture, water or sediments. In this context, water cycle have an important role in the transmission of pathogenic Campylobacter and Shiga toxin Escherichia coli or VTEC. The surface water can be contaminated by these pathogens as a result of not treated slurry or effluents from wastewater treatment plant. The aim of this study was to evaluate the occurrence of pathogenic Campylobacter, Salmonella spp., E.

coli O157:H7 and E. coli virulence genes in wastewater. At this scope, a protocol using an enrichment step and PCR was developed. This method was applied in untreated sewage and treated effluents of three different wastewater treatment plants during 1 year. Moreover the detection of specific microbial indicators were carried out. The molecular method developed proved to be sufficiently sensitive to detect low levels (~ 1–2 CFU) of all pathogens investigated. During the sampling, Salmonella was present in all samples analyzed. E.coli O157:H7 was never found, however the 33% of untreated sewage and 25% of treated effluents revealed the presence of amplicons corresponding to Shiga-like toxin I and 25% of untreated sewage and 8% of treated effluent revealed the presence of Shiga-like toxin II. Campylobacter jejuni and C.coli were monitored in the 50% and 25% of the untreated sewage analyzed respectively, highlighting a widespread contamination of these bacteria in the population. No apparent relationship between concentration of microbial indicator and pathogens was observed.

In conclusion, the results obtained underline that the developed method could be used as a routine analysis for the evaluation of microbiological quality in wastewater samples. Moreover the contamination of the pathogens in the untreated sewage and in the treated effluents suggest the role of wastewater treatment plant in the emerging pathogens circulation.

Key messages

- The developed techniques could be applied as routine analysis in wastewater for the evaluation of microbiological risk
- The information obtained in the untreated sewage could be provide usefulness information about real circulation of emerging pathogens in the population

Tuberculosis-related stigma positively correlates with delay in diagnosis and treatment in Sicily

Annalisa Quattrocchi

A Agodi[1], *A Quattrocchi*[1], *M Barchitta*[1], *C Mammina*[2], *, on behalf of the CCM 2013 TB network*

[1]Department ''GF Ingrassia'', University of Catania, Italy

[2]Department of Sciences for Health Promotion and Mother-Child Care 'G. D'Alessandro', University of Palermo, Italy

Contact: annalisaquattrocchi@hotmail.com

Background

Early diagnosis and prompt therapy are major determinants in tuberculosis (TB) control. Delay may occur at the level of the patient (health-seeking behavior) or at the level of the healthcare system. The aim of our study was to assess TB-related stigma as a determinant of diagnostic and treatment delay in Sicily.

Methods

All new pulmonary TB (PTB) cases were enrolled and a detailed questionnaire was administered. Variables measuring stigma were included and scored according to WHO (2006). The total delay was calculated as the sum of patient delay (time interval between onset of symptom and presentation to a health care provider) and healthcare system delay (time interval between the date of presentation to a health care provider and the initiation of anti-TB treatment).

Results

During a five-months period, 49 PTB patients were enrolled (male: 69.4%; mean age: 40.4 ± 17.8 years old; migrants: 51%). A moderate level of stigma was detected (mean: 66.4%; range: 38.7%–94.7%) and, particularly, within the child-bearing related questions. Notably, for the question ''is a girl unable to decide for getting TB treatment'', males reported a higher level of stigma than females (37.6% vs. 24.3% $p = 0.012$) probably because of the stigma associated with visiting a chest clinic. Mean patient delay and mean healthcare system delay were 77 and 34 days, respectively. Positive correlations were detected between stigma and patient delay ($r = 0.463$; $p = 0.001$) and between stigma and total delay ($r = 0.320$; $p = 0.027$).

Conclusions

Stigma plays an important part in hindering patients from seeking early health care. Gender differences may increase patient and total delay, especially in females. A strong emphasis on health education is recommended to provide basic knowledge about the disease and to reduce stigma. This would allow reducing the transmission and the burden of TB in the community.

Project realized with financial support by Ministry of Health – CCM.

Key messages

- Delay in health-seeking behavior may be related to the stigma associated with a diagnosis of TB
- The social stigma associated with TB is a challenge facing management of the area of public health care

Healthcare-associated infections: Siena 2015

Andrea Serafini

P Manzi[1], *D Lenzi*[1], *G Messina*[2,3], *A Serafini*[3], *S Brandani*[1], *G Lattanzi*[1], *N Nante*[2,3], *S Briani*[1]

[1]Medical Management , ''Le Scotte'' Teaching Hospital, Siena, Italy

[2]Laboratory of Environmental Hygiene, University of Siena, Italy

[3]Post Graduate School of Public Health, University of Siena, Italy

Contact: serandre85@gmail.com

Background

Healthcare-associated infections (HAI) and antimicrobial resistance of ''bugs'' represent important public health problems. HAI are associated with increases in mortality, morbidity, length of hospital stay and costs. The aims of this study were to determine the prevalence and to estimate which factors are important in determining an HAI in an Italian teaching hospital.

Methods

We conducted a cross sectional study, following the protocol of the European Centre for Disease Prevention and Control (ECDC). Medical records (MR) collection was carried out in all the wards, in the period 2nd-13th February 2015. Case definitions, inclusion/exclusion criteria and data collections were defined by the protocol. A descriptive analysis, followed by univariate and multivariate analysis (logistic regression) were carried out. In addition, comparisons with international literature were made.

Results

468 MR were collected. 32 HAI were identified. The most common type of HAI was urinary tract infections 12/32 (37.5%) followed by respiratory 9/32 (28.1%) and blood 4/32 (12.5%) ones.

The most common microorganisms were E.Coli (39.1%), followed by Pseudomonas Aeruginosa (17.4%), and by Staph. Aureus, Candida Albicans and Proteus Mirabilis (each 8.7%).

In the univariate analysis 11 variables resulted significantly correlated with HAI. After the multivariate logistic regression the final model comprehended 3 variables: length of stay ($OR = 1.02$, $p = 0.002$), Mc Cabe score ($OR = 2.48$, $p = 0.04$) and the presence of urinary catheter ($OR = 4.93$, $p < 0.001$).

Conclusions

Our results are in line with European ones by frequencies and species; although urinary tract infections emerged to be more frequent, E.Coli was more common and Staphilococcus less common than in European statistics.

Length of stay, Mc Cabe Score and the presence of urinary catheter seem to be the most important variables involved in the development of an HAI.

Key messages

- The prevalence of HAI recorded does not seem greater than European data except for an higher value of urinary tract infections

- We found that length of stay, Mc Cabe score and the presence of urinary catheter seem to be relevant in the development of an HAI

What do parents know about antibiotics? A multicenter Italian survey on antibiotics knowledge

Fabrizio Bert

F Bert[1], MR Gualano[1], R Gili[1], G Scaioli[1], IF Angelillo[2], S Brusaferro[3], E De Vito[4], G La Torre[5], L Manzoli[6], F Vitale[7], W Ricciardi[8], R Siliquini[1]
[1]Department of Public Health, University of Turin, Turin, Italy
[2]Department of Experimental Medicine, Second University of Naples, Naples, Italy
[3]Department of Medical and Biological Sciences, University of Udine, Udine, Italy
[4]Department of Health and Sport Science, University of Cassino, Cassino, Italy
[5]Department of Public Health and Infectious Diseases, ''Sapienza'' University of Rome, Italy
[6]Department of Medicine and Aging Sciences, University of Chieti, Chieti, Italy
[7]Department of Sciences for Health Promotion and Mother to child care 'G. D'Alessandro'; University of Palermo; Italy
[8]Institute of Public Health, Catholic University of Sacred Heart, Rome, Italy
Contact: fabrizio.bert@unito.it

Background

Antibiotic resistance, mainly related to a misuse of antibiotics (ATB), causes at least 50,000 deaths each year in Europe and USA. Since ATB are prescribed more frequently to paediatric patients, the present study aims to evaluate knowledge and attitudes about ATB among parents of children aged between 0–14 years.

Methods

In June 2014, a survey among parents of children aged between 0–14 years was conducted in seven Italian cities. A structured questionnaire was administered in the waiting rooms of outpatient departments in order to investigate knowledge and attitudes about ATB consumption. An overall score was calculated on the basis of correct and incorrect answers. Data were analysed through frequencies, percentages and logistic regressions.

Results

Overall, 1,244 parents were interviewed (70% females). Around 33% of the sample stated that ATB are appropriate for viral infections, and 21% believed that ATB are useful for any kind of pain and inflammation. To have at least one relative working in health field seems to be statistically significant associated with a better level of knowledge ($p < 0.05$). Moreover, 26% declared to buy ATB for their children without any medical prescription and 55% stated they usually start administering ATB to their children without a proper medical examination. Results of the logistic regressions showed that parents older than 40 years (OR 1.60; 95% CI = 1.24-2.07) have a higher likelihood to totalize poor scores about knowledge on ATB role, while females (OR 0.68; 95% CI = 0.52-0.90) and people with degree (OR 0.39; 95% CI = 0.29-0.52) seem more prone to give correct answers.

Conclusions

The present work showed how parents of children aged 0–14 years have poor knowledge and bad attitudes regarding ATB. Given the high consumption of ATB by paediatric patients, and the role of antibiotic resistance on European burden of disease, it would be important to make aware paediatricians and patients on the risks related to this issue.

Key messages

- Results of our survey showed that, according to the recent data about the size of antibiotic resistance in Europe, parents of children aged 0–14 years have low levels of knowledge and bad attitudes
- European governments should strengthen their actions addressed to fight the incorrect use of antibiotics in the general population

Use of antimicrobial agents in the Teaching Hospital of Siena

Andrea Serafini

A Serafini[1], G Messina[1,2], P Manzi[3], D Lenzi[3], S Brandani[3], G Lattanzi[3], S Briani[3], N Nante[1,2]
[1]Post Graduate School of Public Health, University of Siena, Italy
[2]Laboratory of Environmental Hygiene, University of Siena, Italy
[3]Medical Management , ''Le Scotte'' Teaching Hospital, Siena, Italy
Contact: serandre85@gmail.com

Background

Resistances of ''bugs'' and the misuse of antimicrobial agents (AA) represent an important public health problems. Multiresistant germs are common in hospital acquired infections (HAI) and are responsible for higher mortality, length of hospital stay and costs. The aims of this study were to determine the use and to estimate which factors are important in determining AA utilization.

Methods

We conducted a cross sectional study,data collection on the use of AA was carried out in all the wards of the Teaching Hospital ''Le Scotte'' of Siena on February 2015. A descriptive analysis, followed by univariate and multivariate analysis (logistic regression) were carried out. In addition, comparisons with international literature were made.

Results

468 MR were collected. 217 patients received AA. The most common class of AA used was Cephalosporines (26%), followed by Penicillines (17%), Fluoroquinolons (11%), and Carbapenems (10%).

34.6% of AA was given for medical prophylaxis, 29.4% for community infection, 18.6% for surgical prophylaxis and 14.1% for HAI. After multivariate logistic regression the variables which were significant for the use of AA were: ward typology (Surgical wards and Intensive care use less AA than medical wards: respectively $OR = 0.39$, $p = 0.002$ and $OR = 0.35$, $p = 0.01$), invasive surgery (OR 2.21, p 0.01) and the use of catheters : central venous one $OR = 4.73$ $p < 0.001$, peripheral venous one $OR = 4.79$ $p < 0.001$ and urinary one $OR = 2.13$ $p = 0.002$.

Conclusions

Our study agree with other European studies regarding the most frequently used AA classes; although we registered a higher use of AA, especially for medical prophylaxis. Ward typology, surgery and the presence of catheters seemed to be the most important variables involved in the use of AA.

Key messages

- We found an antimicrobial agents utilization greater than European data, especially for the medical prophylaxis
- Ward typology, surgery and the presence of catheters are the most important variables involved in the use of antimicrobial agents

4.K. Pitch Presentations: Cancer

Urban-rural variations in survival from gastric cancer in Northwest Russia: a registry-based study

Daria Dubovichenko

MN Nechaeva[1], *AM Grjibovski*[2,3,4], *TR Izmailov*[5], *AA Ruzhnikova*[6], *EP Solovyova*[1], *DM Dubovichenko*[1], *LE Valkova*[1], *ML Levit*[1,6], *AV Krasilnikov*[1,6], *LN Lebedeva*[1], *MY Valkov*[1]
[1]Northern State Medical University, Arkhangelsk, Russia
[2]Department of International Public Health, Norwegian Institute of Public Health, Oslo, Norway
[3]International School of Public Health, Northern State Medical University, Arkhangelsk, Russia
[4]International Kazakh-Turkish University, Turkestan, Kazakhstan
[5]Russian Scientific Center of Roentgenoradiology, Moscow, Russia
[6]Arkhangelsk Regional Clinical Oncological Dispensary, Arkhangelsk, Russia
Contact: andrej.grjibovski@gmail.com

Introduction

Earlier studies showed considerable urban-rural variations in both the incidence of and survival form gastric cancer in Russia. However, the factors behind this association remain unknown. We studied whether these differences can be explained by earlier diagnosis or better accessibility of treatment to urban patients using the data from the Arkhangelsk Regional Cancer Registry (ARCR).

Methods

Data on all cases of GC in 2000–2012 were obtained from ARCR. Information on stage at diagnosis, histology, gender, age, year of diagnosis, as well as treatment was collected. One and five year survival was estimated using life tables method Cox regression was used to study associations between the residence and survival by consecutive introduction of independent variables into the model. Hazard ratios (HR) with 95% confidence intervals (CI) were calculated.

Results

Altogether there were 7098 cases of gastric cancer registered in the ARCR in 2000–1012. One- and five years survival in urban areas were 0.40 (95% CI: 0.39-0.42) and 0.21 (95% CI: 0.20-0.22). The corresponding numbers for the rural areas were 0.35 (95% CI: 0.33-0.37) and 0.16 (95% CI: 0.15-0.17). Urban residents had better overall survival in crude analysis (HR = 0.81, 95% CI: 0.76-0.85). Adjustment for stage of diseases reduced this association to HR = 0.90 (95%CI: 0.85-0.96). Adjustment for all other factors did not alleviate the association (HR = 0.92, 95% CI: 0.85-0.98).

Conclusions

Survival of GC patients from urban areas was substantially better compared to their rural counterparts. Although urban residents were often diagnosed with GC earlier stage, it could not fully explain urban-rural differences in survival from GC suggesting that other factors, particularly, social deprivation might also contribute to the observed variations by place of residence.

Key messages

- Survival of GC patients from urban areas was substantially better compared to their rural counterparts
- Earlier diagnostics cannot explain the observed variations

Georeferentiation of incident cases of melanoma, lynphoma non-Hodgkin and breast cancer in Brescia I

Grazia Orizio

G Orizio[1], *M Magoni*[2], *F Speziani*[1], *C Scarcella*[3]
[1]Department of Medical Prevention, ASL Brescia, Italy,
[2]Epidemiological Observatory, ASL Brescia, Italy
[3]General Direction, ASL Brescia, Italy
Contact: grazia.orizio@aslbrescia.it

Background

Brescia Municipality is an area with a high level of pollution by policlorobiphenils (PCBs), being the site of the factory Caffaro that produced them until 1984. In 2013 the Agency for Research on Cancer classified PCBs as certain cancirogenic for melanoma, while it concluded that increased risks for non-Hodgkin lymphoma (NHL) and breast cancer have limited evidence.

The study is aimed to analyse the incident cases of melanoma, NHL and breast cancer through a retrospective analysis comprising residence mapping and georeferentiation.

Methods

Brescia Municipality is included in the area of the Local Health Authority of Brescia (ASL Brescia). Cases are the ones reported by the Cancer Registry of ASL Brescia in 1999–2006.

Three spacial analysis were performed:

1. A comparison among ASL Brescia and other ASLs near-by.
2. An analysis of cancer incidence in the ASL Brescia territory, comparing the 164 Municipatilites.
3. An analysis of cancer incidence inside the Brescia Municipality, comparing the city quarters (30) and the municipalities near-by (15).

Results

1. ASL Brescia incidence is alligned with regional data both for melanoma and LNH, while for breast cancer it shows the highest incidence of Lombardy.
2. A higher incidence was found going from the city to Garda Lake for melanoma and breast cancer. For NHL ASL Brescia territory incidence did not show significant clusters.
3. Brescia Municipality presented a higher incidence in north-east suburbs compared to south for melanoma, and in Caffaro area was similar to the one of the remaining areas of the city. NHL incidence in Caffaro area was higher compared to the remaing areas of the city, both in males and females, statistically significant. Inside Brescia Municipality breast cancer incidence did not show significant clusters.

Conclusions

The study did not show significant clusters linked to PCBs most polluted areas for melanoma and breast cancer, while a statistically significant higher NHL incidence was found.

Key messages

- NHL incidence in Caffaro area was higher compared to the remaing areas of the city, both in males and females, statistically significant
- The study did not show significant clusters linked to PCBs most polluted areas for melanoma and breast cancer

Gender differences in colorectal cancer screening in Central Italy

Gabriella Prisco

G Prisco[1], *F Mirri*[2], *P Baldaccini*[2], *D Sallese*[2], *G Messina*[1,2,3], *N Nante*[1,2,3]
[1]Post Graduate School of Public Health, University of Siena, Italy
[2]Local Health Authority 8 of Tuscany Region, Arezzo, Italy
[3]Health Services Research Laboratory, University of Siena, Italy
Contact: gabriellaprisco@alice.it

Background

Colorectal Cancer (CRC) is the second leading cause of cancer death; its incidence and mortality can be effectively reduced with the spread of screening programs addressed to both genders. Some studies suggest that the increased mortality risk of males is related to a lower adherence to CRC screening. The aim of this study is to analyze time trends and gender differences in adherence to CRC screening in an area of central Italy.

Methods

We collected data for Arezzo province (Tuscany Region) covering the period 2006–2013 on: 1) compliance to fecal occult blood (FOBT) test invitation; 2) FOBT positivity rates; 3) attendance to colonoscopy. All data were stratified by sex, age group (50-54, 55–59, 60–64, 65–69, 70+) and for the history of screening (first and subsequent invitations). The non-parametric test of Cuzick was used for the statistical analysis of time trends, while data comparison between groups was carried out by applying Chi-square test. The statistically significant level was fixed at $p < 0,05$.

Results

The total average compliance in the study period was 58,2% with a significant decreasing trend ($p = 0,037$)of participation. Men underwent to FOBT less than women(56,2% vs 60,1; $p < 0,01$), for all the years except 2007($p = 0,41$). Stratifying data by age and history of screening, the males-females difference lost significance in the oldest age-group (>65) and in the adherence to subsequent invitations. FOBT positive rates were higher in males($p < 0.01$) and in the older age groups in both genders. Women showed a lower, although not significant, attendance to colonoscopy (70,7% vs 71,3%).

Conclusions

The findings showed a decreasing trend of participation in CRC screening. In line with the existing literature, a lower rate of adherence was found amongst men compared to women and in the younger age groups. Ad hoc studies and targeted interventions are needed to better understand and minimize gender specific obstructing factors and then increase CRC screening uptake.

Key messages

- There is a significant gender inequity in CRC screening utilization, with the less adherent population represented by males in the youngest age group (50-54 ys)
- argeted and differentiated by gender interventions are needed to improve adherence to annual CRC screening

Photoprotective nutrient and reactivity of skin due to sun exposure of postmen of Porto Alegre

Aline Schneider

Karina Santos[1], Mônica Zandavalli[1], Flávia Silva[1], Aline Petter Schneider[2]
[1]Universidade Federal do Rio Grande do Sul. Curso de Nutrição, Brazil
[2]Universidade Federal do Rio Grande do Sul. Faculdade de Medicina. Departamento de Nutrição, Brazil
Contact: aline@ipgs.com.br

Background

Nutritional deficiencies are often associated with skin health disorders, while diets can either positively or negatively influence skin condition. This study aims to evaluate the photoprotectors nutrients intake and the reactivity of skin due to the solar exposition in postmen in city of Porto Alegre, southern of Brazil.

Methods

This was a cross-sectional study enrolled postmen. Postmen were evaluated regarding sociodemographic and nutritional habits, from August, 2011 to December, 2012, in six centers of Distribution of Post. Dietary intake was evaluated by Telephone-Based Surveillance of Risk and Protective Factors for Chronic Diseases questionnaire and two 24-hour dietary recall. Micronutrients such as beta-carotene, lycopene and n-3 fatty acids were assessed as photoprotective factor. Reactivity of skin was assessed by Fitzpatrick skin type score. The study was approved by the Federal University of Rio Grande do Sul and Institute of Porto Alegre Research Ethics Committee (protocol n°. 204 and 2010, respectively).

Results

A total of 204 postmen were evaluated to participate in the study. Of them, 23 postmen were excluded. The mean age of the 181 postmen was 42.2 ± 11.4 years, and 140 (77.3%) were men. The mean of sun exposition was 3.0 ± 1.4 hours. One hundred (55.2%) used cap or hat, while 84 (46.4%) postmen used sunscreen. Median (interquartile range) photoprotective nutrients was 1.6mg (0.5 – 2.3) of beta-carotene, 3.6mg (1 – 6.3) of lycopene and 0.95g (0.6 – 1.45) of n-3 fatty acids. The results of photoprotective nutrients intake were less than recommendations to protective effect (24mg, 16mg and 3g, respectively). One hundred thirty eight (76.3%) presented skin II, III and IV about Fitzpatrick score.

Conclusions

The consumption of photoprotective nutrients is low in this group. Postmen were exposing daily to high levels of ultraviolet solar radiation, whose lack of protection can result in many health damage.

Key message

- Consumption of photoprotective nutrients is essential to skin health. It is very important to evaluate the photoprotectors nutrients intake in postmen

Mapping of thyroid cancer mortality in Belgium from 1969 to 2010

Tom De Smedt

T De Smedt[1,2], K Simons[1], A Van Nieuwenhuyse[1], G Molenberghs[2]
[1]Scientific Institute of Public Health, Brussels, Belgium
[2]K.U. Leuven, Leuven, Belgium
Contact: tom.desmedt@wiv-isp.be

Background

Thyroid cancer incidence has been increasing in many countries over the last 30 years. The reasons for this increase are not completely understood with exposure to ionizing radiation being the best established risk factor. Following the nuclear accident in Fleurus, a surveillance of thyroid cancer in Belgium, and with special focus on the major nuclear sites, was commissioned. Fleurus is one of the major producers of I-131 in Europe and started its activities in 1971. The post-incidental investigation showed major problems with the operational management and safety of the Fleurus' site and, therefore, earlier exposures cannot be ruled out. As cancer mortality data are available over a long period, we performed a disease mapping of thyroid cancer mortality and compared the results with previous studies that used the classical Standardized Mortality Ratio (SMR).

Methods

Age- and sex specific thyroid cancer mortality data (5-year age categories) were available from 1969 until 2010 at the level of the municipality. Disease mapping was done via Bayesian hierarchical modelling with conditional autoregressive priors fitted through Markov Chain Monte Carlo sampling. In contrast with SMRs, Bayesian modelling integrates information from the neighbourhoods by random effects modelling.

Results

No significant clusters of increased thyroid cancer mortality were found for the period 1969–2010. Increased estimates were observed in some areas, but none around the major nuclear sites. This in contrast with the SMRs that gave multiple significant increases.

Conclusions

No evidence was found for a relation between thyroid cancer mortality and the major nuclear sites. The study specifically shows the advantages of Bayesian modelling in detecting more accurately local increases of disease and is the first of its kind combining a long period of mortality data with recently developed spatial statistical methods.

Key messages

- No significant increases of thyroid cancer mortality were observed from 1969 till 2010 in Belgium
- The use of Bayesian modelling in environmental health surveillance should be advocated more widely

Cost-effectiveness of lung cancer with low-dose computed tomography: A systematic literature review

Anna Puggina

A Puggina[1], A Broumas[2], Stefania Boccia[1]
[1]Institute of Public Health, Section of Hygiene, Università Cattolica del Sacro Cuore, Rome, Italy
[2]SDA Bocconi School of Management, Milan, Italy
Contact: annapuggina@gmail.com

Background

On December 31, 2013, the US Preventive Services Task Force (USPSTF) rated low-dose computed tomography (LDCT) for lung cancer screening as level "B" recommendation. Yet, lung cancer screening implementation remains controversial, particularly when considering its cost-effectiveness. The aim of this work is to investigate the cost-effectiveness of LDCT screening program for lung cancer by performing a systematic literature review.

Methods

We reviewed the published economic evaluations of LDCT in lung cancer screening. MEDLINE, ISI Web of Science and Cochrane databases were searched for literature retrieval up to March 31, 2015, with English language restriction. Inclusion criteria included: full text availability; studies on the form of original full economic evaluation; reports presenting the outcomes as Quality Adjusted Life Years (QALYs) gained or as Life Years Gained (LYGs).

Results

Nine economic evaluations met the inclusion criteria. All the included economic evaluations analyzed high risk populations and compared the use of annual LDCT screening with no screening. However, the magnitude of the reported cost-effectiveness ratios varied widely, ranging from US$ 1,464/ QALY saved to US$ 169,000/ QALY saved.

Conclusions

Cost-effectiveness of LDCT screening for lung cancer is an highly debatable issue. Currently available cost-effectiveness analysis does not permit to draw a defined conclusion regarding the implementation of LDCT in national lung cancer screening programs. Additional economic evaluations, especially from a societal perspective are needed.

Key messages

- The heterogeneity of the cost-effectiveness analyses performed up to date does not allow to state the cost-effectiveness of LCDT large-scale population-based implementation for lung cancer screening
- Additional data from sufficiently powered clinical trials and from further economic evaluations will potentially strengthen the evidence of LDCT's value for money

Carotenoid intake from natural sources and colorectal cancer: a systematic review and meta-analysis

Maria Benedetta Michelazzo

N Panic, D Nedovic, R Pastorino, S Boccia , E Leoncini, MB Michelazzo
Section of Hygiene, Institute of Public Health, Università Cattolica del Sacro Cuore, Rome, Italy
Contact: mb.michelazzo@yahoo.it

Background

Carotenoid intake from natural sources has been hypothesized to reduce the risk of colorectal cancer (CRC). The purpose of this study is to consolidate epidemiological evidence for the association between these nutrients and CRC development. We conducted a systematic review and meta-analysis of epidemiological studies to investigate whether the intake of specific carotenoids from natural sources, as well as combined carotenoids, is associated with the risk of CRC, overall and by anatomic subsite.

Methods

A comprehensive literature search of MEDLINE and Scopus databases was conducted. Both database were searched using the terms: 'diet', 'nutrients', 'carotenoids', 'cryptoxanthin', 'lycopene', 'lutein', 'zeaxanthin', 'colorectal cancer', 'colon cancer', 'rectal cancer'. The association between carotenoid intake and CRC risk was estimated by calculating pooled odds ratio (OR) and 95% confidence interval (CI).

Results

Twenty-two articles were identified from the literature search, of which 16 case-control studies and six cohort studies. Twelve of them were included in the quantitative synthesis.

In the random-effects meta-analysis of case-control studies, we reported no association between the intake of individual and total carotenoids and CRC, except for α-carotene (OR = 0.58, 95% CI 0.33-1.03, I2 = 84.9%, $p < 0.01$) and lutein and zeaxanthin (OR = 0.78, 95% CI: 0.56-1.09, I2 = 72.7%, $p < 0.05$), which showed a mild protective effect. No association was reported between the intake of β-carotene and lycopene and colon cancer risk. In the random-effects meta-analysis of cohort studies, no significant associations were found between the intake of individual and total carotenoids and the risk of CRC, overall and by anatomic subsite.

Conclusions

Overall, our findings do not support a significant association between specific carotenoids intake from dietary sources, as well as combined carotenoids, and risk of CRC, overall and by anatomic subsite.

Key message

- Our results do not support a significant association between carotenoids intake and colorectal cancer risk

Health-related quality of life, social support and social capital of mothers of children with cancer

Christiana Nicolaou

C Nicolaou, EDE Papathanassoglou, C Kouta, N Middleton
Department of Nursing, School of Health Sciences, Cyprus University of Technology, Cyprus
Contact: c.nicolaou@cut.ac.cy

Background

The diagnosis of childhood cancer is particularly stressful with adverse health effects for all the family. Social support and the wider social context can act as buffer, perhaps as long as the support provided is appropriate (stressor-specific hypothesis).

Methods

A descriptive comparative study of health-related quality of life (HRQoL) using the SF-36 survey in a sample of 52 mothers of children with cancer (MCC, 93% response) from the only pediatric oncology referral centre on the island compared to 208 mothers of age/gender matched healthy children in the absence of population norms (MHC, 89% response). In each group, the magnitude of the association of HRQoL with perceived social support (MOS–SSS) and social capital (SCQ) was assessed and compared.

Results

Significant reduced scores on the SF-36 Mental Health Component and all four domains (effect sizes -0.4 to -0.7 SD, $p < 0.01$) was observed among MCC. Even though there were no differences in perceived social support between the groups, the protective effect on mental health was restricted to mothers of healthy children (1.62 95% CI = 1.02, 2.23 per 10 unit increase in social support score) but no association was observed in mothers of children with cancer (0.08 95% CI=-1.16, 1.32); p for effect modification=0.03. A similar picture emerged in terms of social capital. In contrast, social support and social capital showed strong positive associations with Physical Health in both study groups, and somewhat stronger among MCC.

Conclusions

Whilst HRQoL is positively associated with social support and social capital in a sample of mothers from the general population, among mothers of children with cancer the potential protective effect appears restricted to physical and not mental health, which is particularly poor, giving support to the stressor-specific hypothesis of social support and hence the importance and need to design and evaluate psychosocial programs targeted to the individual circumstances and needs of these families.

Key messages

- Availability of social resources ispositively associated with health-related quality of life in the general population
- The mental health of mothers of children with cancer is significantly compromised, irrespective of their perceived social support and social capital

4.L. Pitch Presentations: Social security, work and health

Effort-reward imbalance, overcommitment and long-term sick leave for mental disorder

Ulrik Lidwall

U Lidwall
Department for Analysis and Forecast, Statistical Analysis Unit, Swedish Social Insurance Agency, Stockholm, Sweden
Department of Clinical Neuroscience, Division of Insurance Medicine, Karolinska Institutet, Stockholm, Sweden
Contact: ulrik.lidwall@socialagency.se

Background

In modern work-life a lack of equity and reciprocity of exchange in the job situation between efforts and rewards could lead to a condition of emotional distress with increased risk of mental and physical illness. The aim was to investigate if effort-reward imbalance (ERI) and overcommitment (OC) predict all-cause and mental disorder long-term sick leave (LS) in a random working population sample. Identifying differences in associations between genders, private vs. public sector employees and socioeconomic status was also in focus.

Methods

The study used a cross-sectional design with a case and a control group. The cases were a sample of 3 477 on sick leave ($\geq$ 60 days) and the controls are a population-based sample of 2 078 employed. Data on sick leave were retrieved from the Swedish national social insurance registers. Data on health, working and living conditions were gathered through a self-administered questionnaire. Associations were tested in logistic regression analysis and presented as odds-ratios (OR).

Results

ERI was associated with all-cause LS among women (OR 1.58), but not men. OC was not associated with all-cause LS. Associations with mental disorder LS were evident for both ERI and OC among both genders (Women: ERI OR 2.76, OC OR 2.82; Men: ERI OR 2.18, OC OR 2.92). Among women the ERI-association were driven by low job esteem in the public sector and low job security in the private sector, and among men high effort. Among highly educated, ERI was strongly related to mental disorder LS among women (OR 6.94) while OC was strongly related to the same outcome among men (OR 5.79). Among women and men with shorter education both ERI and OC were associated with mental disorder LS.

Conclusions

With LS as the outcome, the study confirmed the independent role of ERI and OC, with stronger associations among women and for mental disorders. The ERI-model is a promising contributor to increased understanding of the prevailing gender gap and sick leave due to mental disorders.

Key messages

- Psychosocial work environments characterised by imbalances between efforts and rewards and the personal trait of overcommitment is substantially associated with mental disorder long-term sick leave

Primary Healthcare Professionals' Experiences of the Sick Leave Process: A Focus Group Study

Emma Nilsing

E Nilsing, E Söderberg, C Berterö, B Öberg
Department of Medical and Health Sciences, Division of Physiotherapy, Linköping. Sweden,
Contact: emma.nilsing@liu.se

Background

There is scientific evidence from studies conducted in several countries showing that physicians face challenges in sickness certification tasks, primarily in assessing work ability, and that it is within scope for other professionals to be involved. Purpose The aim of this study was to explore primary healthcare (PHC) professionals' experiences of the sick leave process.

Methods

This is an explorative study using data from four semi-structured focus group discussions with a purposeful sample of PHC professionals in Östergötland County, Sweden. Content analysis with an inductive approach was used in the analysis.

Results

Four key themes emerged from the analysis; priority to the sick leave process, handling sickness certifications, collaboration within PHC and with other stakeholders, and work ability assessments. Patients' need for sick leave was handled from each professional group's perspective. Collaboration was considered important, but difficult to achieve and all the competencies available at the PHC centre were not used for work ability assessments. There was insufficient knowledge of patients' work demands and contact with an employer was rare, and the strained relationship with the social insurance officers affected the collaboration.

Conclusions

This study highlights the challenges physicians and other PHC professionals face when handling the need for sick leave, especially when encountering patients with symptom-based diagnoses, and the influence of non-medical factors. Hindrances to good practice were increased demands, collaboration, and role responsibility. The challenges in the sick leave process concerned both content and consequences related to poor collaboration within PHC and with representatives from various organizations, primarily employers and social insurance officers. Further research on how to develop a professional approach for handling the sick leave process is needed.

Key messages

- Handling sick leave is still a challenge, especially when encountering patients with symptom-based diagnoses. Despite this challenge, competencies at the PHC were not used for work ability assessments
- There is insufficient knowledge on work demands and poor stakeholder collaboration. Further research is needed on how to develop a professional approach for handling the sick leave process

Sickness absentees' experiences of negative encounters from the Social Insurance Agency

Emilie Friberg

E Friberg[1], G Grant[2], K Alexanderson[1]
[1]Department of Clinical Neuroscience, Division of Insurance Medicine, Karolinska Institutet, Stockholm, Sweden
[2]Law Faculty, Monash University, Melbourne, Australia
Contact: Emilie.Friberg@ki.se

Background

Previous studies have observed that sickness absentees' experiences of encounters with rehabilitation professionals are of great importance for return to work, it is however rarely studied. The aim of this study was to explore long-term sickness absentees' experiences of encounters from the Swedish Social Insurance Agency (SSIA) in general and by diagnosis group

Methods

In 2013, a questionnaire was sent to a random sample that had an ongoing sick-leave spell that had lasted between four and eight months, 9558 responded (response rate 52%). Register data concerning the sick leave (including the diagnosis) and demographic factors were also added. The questionnaire included detailed questions about positive and negative encounters with the SSIA. Descriptive statistics and odds ratios (OR) using logistic regression with 95% confidence intervals were computed, multivariable analysis were adjusted for age, sex, birth country, and educational level.

Results

Among the long-term sickness absentees a majority, in all diagnosis groups, had most often experienced positive encounters from the SSIA. Compared to individuals' sickness absent due to cancer those sickness absent due to other diagnosis had a higher risk of most often having experienced negative encounters from the SSIA; mental diagnoses OR:1.36 (95% CI: 1.01-1.82), circulatory OR:1.43 (0.96-2.13), musculoskeletal OR:1.55 (1.16-2.08), injury OR:1.48 (1.05-2.08), and other OR:1.45 (1.07-1.97).

Conclusions

The results from this cross-sectional study suggest that a majority of the long-term sickness absentees had most often experienced positive encounters. However, compared to individuals' sickness absent due to cancer, individuals sickness absent due to another diagnosis had higher risk of having experienced negative encounters from the SSIA.

Key messages

- A majority of the long-term sickness absentees had most often experienced positive encounters with the Social Insurance Agency
- Sickness absentees with mental diagnosis, musculoskeletal, injury or other diagnosis had a higher risk for having experienced negative encounters compared to those sickness absent due to cancer

Economic wellbeing among people with severe impairments, receiving personal assistance to work

Ieva Reine

I Reine, E Palmer, K Sonnander
Uppsala university, Swedish Social Insurance Agency, Sweden
Contact: ievareine@hotmail.com

People with disabilities have lower labour market participation in general; they are also at higher risk to have less economic resources, power, and social standing. Women tend to have generally inferior positions on the labour market to that of men, but little is known about gender patterns among those who have the most severe impairments and receive personal assistance to work.

The study explored if gender-based economic wellbeing exists for working people with severe impairments.

The study was based on a register and survey data of the Swedish Social Insurance Agency based on a poll of people entitled to personal assistance (total of 15,515). The sample consisted of 7298 working age people 16–64 years. Logistic regression models were used to estimate associations between employment status and six socio-economic indicators, measuring economic wellbeing, stratified by gender.

The total employment rate was slightly above 20% and more men than women responded that they worked. Men had generally better chances to economic wellbeing compared to women. The legislation did not seem to have an equalizing effect on labour market attachment and socioeconomic conditions among men and women - gender patterns remained even among the working population with severe impairments.

The gender differences found have been in favor of men and could be attributable to the disadvantaged situation of disabled people in the labour market and in the society in general. The gender patterns in the society can be attributable even to people with severe impairments.

Key messages

- Among people with severe impairments, men have generally better chances to economic wellbeing compared to women
- The gender patterns in the society can be attributable even to working people with severe impairments

The association of health with family and employment statuses in Germany, France and the Netherlands

Elena Von Der Lippe

E von der Lippe[1], P Rattay[1], D Kostova[2]
[1]Department of Epidemiology and Health Monitoring, Robert Koch Institute, Berlin, Germany
[2]Laboratory of Demographic Data, Max Planck Institute, Rostock, Germany
Contact: E.vonderLippe@rki.de

Background

The association of health with family and employment statuses is often discussed from the view of the multiple role-burden or the multiple role-attachment hypotheses. Besides, it is considered that the relation between employment, family and health is strongly influenced by the national policy and welfare systems. The aim of this study is to compare the association between health and fulfilling multiple roles in Germany, France and the Netherlands.

Method

Data come from the Generations and Gender Surveys carried out in Germany (2009), France (2008) and the Netherlands (2007). The analyses are restricted to people aged 18 to 64 years. The samples comprise 2,420 people in Germany, 5,210 in France and 4,969 in the Netherlands. The descriptive results are weighted. Logistic regression analyses are in progress.

Results

The family and employment arrangements vary substantially between the three countries, particularly for women. About 64 % of married women in France work full time, compared to only 17% in the Netherlands and 37 % in Germany. Similar relationship is found when comparing working women with children across the countries. While employment was found to have a protective effect on health in all three countries, especially for men, the number of working hours did not play a central role. Yet, part-time employed women in France as well as part-time employed men in the Netherlands reported more often poor health than full-time employed. Besides, persons without a partner significantly more often rated their health as poor. The same holds for persons living without children in the household.

Conclusions

The results show that the association between health and fulfilling multiple roles (i.e. working and having family) is similar among the countries; yet the strength of this association differs considerably. Further investigations should reveal the factors that drive these differences as well as interactions between the three social roles are considered.

Key messages

- Employment, partnership and parenthood are strongly related with self-rated health in Germany, France and the Netherlands
- The association between health and fulfilling multiple roles is similar among the countries; yet the strength of this association differs considerably

'Flexicurity' policies for people with chronic illness in Denmark, the Netherlands, Sweden and the UK

Ashley McAllister

A McAllister[1], L Nylén[1,2], M Backhans[1,2], K Boye[1], M Whitehead[1,3], B Burström[1,2]
[1]Equity and Health Policy Research Group, Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden
[2]Centre for Epidemiology and Community Health, Stockholm County Council, Health Care Services, Stockholm, Sweden
[3]Institute of Psychology Health and Society, University of Liverpool, Liverpool, UK
Contact: ashley.mcallister@ki.se

Background

Employment is a key determinant for health. People with chronic illness and low education (the target group) may experience problems in the labour market. Furthermore health-related unemployment has significant economic costs to society. Reduced employment protection while maintaining economic security for the individual, referred to as 'flexicurity' has been proposed as a way to increase employment overall. We aimed to determine which, if any, dimensions of 'flexicurity' policies helped to keep the target group employed or, if not working, to facilitate their entry into work.

Methods

We used a mixed-methods approach – comparative case analysis, labour market policy indicators and individual survey data–triangulating multiple data sources to compare the development of labour market policies and employment rates in Denmark, the Netherlands, Sweden and the United Kingdom from 1990 to 2010. These cases represent different combinations of employment protection and economic security.

Results

Employment rates in all countries were much lower in the target group than for other groups over the study period and economic security policies in all countries were eroding. However employment rates were higher in Sweden than in Denmark with the traditional model of 'flexicurity'. Reducing employment protection legislation may help those in the target group re-enter employment but could prevent them from maintaining employment. Active labour market policies (ALMPs) should be targeted towards specific groups to achieve specific outcomes.

Conclusions

Traditional models of 'flexicurity' may not be effective in increasing employment for the target group. Policies should address this vulnerable group. Future research could develop a typology of ALMPs to better understand which types are best suited for the target group. Moreover, economic security policies for those unable to earn their living from work should be adequate and not add economic strain to the burden of illness.

Key messages

- Increasing employment among the target group could reduce adverse health consequences and contribute to decreasing inequalities in health
- 'Flexicurity' is not a 'magic bullet' for increasing attachment to the labour market for the target group

4.M. Pitch Presentations: Mental health issues in Europe

Preventing major depressive disorder: how behavioural economics can help

Ashleigh Woodend

AMR Woodend, VLN Schölmerich, S Denktaş
Social and Behavioural Sciences, Erasmus University College, Rotterdam, The Netherlands
Contact: woodend@euc.eur.nl

Major depressive disorder (MDD) – colloquially referred to as depression - is the second leading cause of disability-adjusted life years in developed countries. The disorder is highly prevalent, tends to be chronic or recurrent, and inflicts a burden on both the individual and the economy. Current preventive interventions, such as problem-solving therapy, are fairly effective but also expensive.

In this commentary, we discuss nudges as a cost-effective complementary strategy for preventing MDD. Derived from insights of behavioral economics, nudges adapt the way choices are presented to people by directly leveraging upon systematic cognitive biases that are related to (unhealthy) behavior. We explore how nudges could combat three behavioral risk factors for developing MDD: low physical activity, use of inappropriate coping mechanisms, and inadequate maintenance of social ties. These risk factors have been selected given their relatively high odds ratios for contributing to the onset of MDD – 2.1, 2.32, and 2.95, respectively. For each behavioral risk, we identify related biases and propose effective nudges.

Low physical activity is explained by the present bias – people value the present more than the future. A nudge leveraging upon this bias could use 'temptation bundling' for exercise adherence. The bandwagon effect and framing can also be used to promote physical activity using nudges that highlight the physical activity norm to those likely to be below it, and that make use of gain-framed as opposed to loss-framed messages.

In moving individuals away from inappropriate coping mechanisms, the salience hypothesis – i.e. people tend to choose the option that is most salient to them–could be leveraged by using highly visible posters encouraging individuals to seek out assistance in stressful situations. Finally, we suggest using the status quo bias (people prefer the way things are) in promoting the creation and maintenance of social ties, by choosing for open-offices in industries/firms characterized by little social interaction.

Key messages

- We identify 3 behavioral risks for major depression that could be prevented by nudges. By leveraging biases related to these risks (such as the status quo bias), we propose 5 nudging strategies
- We show how an examination of the current behavioral risks, their related biases, and available nudging interventions can lead to new intervention routes for preventing major depression

Can One Year at University Increase Depression?

Burcu Kucuk Bicer

B Kucuk Bicer[1], TMP iskin[2], S Uner[1]
[1]Public Health Department, Hacettepe University Institute of Public Health, Ankara, Turkey,
[2]Public Health Department, Hacettepe University School of Medicine, Ankara, Turkey
Contact: drburcubicer@gmail.com

Background

Many students face with physchological problems at university related to new environment, parted from family and courses. We wanted to determine depression status and yearly change in university students.

Methods

The study was planned as a cohort study. 202 voluntary students from different grades were participated. There were 2 data collecting periods with one year interval. Data was collected using a questionnaire including; sociodemographic characteristics and Zung Self Depression Sclae (ZSDS). Descriptive statistics, Wilcoxon Signed rank, t-tests and logistic regression was used to analyze data and ethical consent was taken.

Results

Student's mean age was 20.4 (1.7), 57.4% were male. Participants' 67.3% of them define themselves "middle income group" and 55.4% had moderate performance at faculty. According to ZSDS; 7.1% of the students at 1st and 10.5% of the students had moderate to severe depression at 2nd data collecting period ($p < 0.001$). Staying with relatives ($\beta = 2.7950$; $p = 0.002$), very low pocket money ($\beta = -2.234$; $p = 0.037$), high school ($\beta = 1.886$; $p = 0.009$) or university ($\beta = 1.191$; $p = 0.28$) graduate mothers were related with ZSDS cores.

Conclusions

The self rating depression scores was similar however there was an increase at the percentage of moderate to severe depression in one year monitoring period. Comprehensive qualitative studies and clinical appearance of depression must be evaluated to show this change. On the other hand, interventions for students indicating self depression should be planned.

Key messages

- University students need support for their psychologic problems, otherwise they may not be able to solve the problem
- Depression is an issue in university students especially with disadvantages

Elderly Mental Health and Related Factors in Geriatric Depression in Turkey

Burcu Kucuk Bicer

B Kucuk Bicer[1], S Uner[1], G Telatar[2], H Ozcebe[1], OY Yavuz Sarı[3]
[1]Public Health Department, Hacettepe University Institute of Public Health, Ankara, Turkey,
[2]Directorate of Public Health of Sinop Province, Sinop, Turkey,
[3]Public Health Department, Hacettepe University School of Medicine, Ankara, Turkey
Contact: drburcubicer@gmail.com

Background

Ageing is associated with increased morbidity, mortality, hospitalisation and loss of functional status related to common mental disorders in the elderly patients. The need to identify new and unmet problem areas and develop efficient interventions for this special population is stressed.

Methods

The cross sectional study was conducted in a province with 2269 (65-100 years) participants. In 2013; 7.7% of Turkish population was 65 and over, whereas the selected province's elderly population was 2.5 times more than the whole country. Sample was chosen using layered method and known universe formula. Data was collected using a questionnaire including; sociodemographic characteristics, illness, medications, General Health Level Scale (GHLS), Geriatric Depression Scale (GDS). Descriptive statistics, chi-square, t-tests and linear regression weas used to analyze data and ethical consent was taken.

Results

Mean age was 73.3 (6.7), 50.3% were male. Of the participants' 71.8 had a chronic disease and 62.2% used medication. GDS score was 11.2 (8.2); 31.2% had severe depression ($GDS > 14$). 14.6% declared that they had bad generel health level. According to linear model, high GHLS score (β=−4.558;$p < 0.001$), still working ($\beta = 3.337$; $p < 0.001$), living with someone (β=-2.079;$p < 0.001$) and not using any prescriptions (β=−1.545;$p = 0.010$) were important determinants of GDS.

Conclusions

Depression should be routinely investigated in community-dwelling elderly and strategies devised to combat it. The incidence of depression may significantly increase in people with a lower functional status, which may be related to cognitive process disturbances and lower affective functioning.

Key messages

- A comprehensive geriatric assessment, related to all aspects of advanced-age patients' efficiency, is recommended
- Ageing has brought with it several physical as well as mental problems

Attitudes towards social inclusion of people with mental disabilities in Lithuania in 2006 and 2015

Marija Veniute

Marija Veniute[1], Dainius Puras[2]
[1]Vilnius University, Faculty of Medicine, Institute of Public Health, Vilnius, Lithuania
[2]Vilnius University, Faculty of Medicine, Clinic of Psychiatry, Vilnius, Lithuania
Contact: marija.veniute@mf.vu.lt

Background

Social inclusion is a crosscutting priority for mental health policies and one of crucial outcomes for people with mental disabilities (PMD). Attitudes towards social inclusion of PMD may serve as an indicator of stigmatization, social pathology in society, and reflect readiness for reforms to integrate PMD into community. Lithuania as other post-soviet countries inherited a largely institutionalized system for people with mental disorders and disabilities. Since 2007 Lithuania has been reorganizing mental health systems to support social inclusion of PMD and one of arguments to rationalize the resistance was stigmatizing attitudes in the society. The study aims to identify attitudes towards social inclusion of people with mental disabilities in Lithuania and to explore if institutional reforms for social integration undergoing in the country for the last decade are reflected in changes of public attitudes towards social inclusion of people with mental disabilities.

Methods

Data from two population surveys that have been conducted in 2006 and 2015 will be compared.

Results

Attitudes towards social inclusion of people with mental disabilities were measured using 6 attitude scales: attitudes towards mental disability (1), people with mental disabilities (2), active inclusion of PMD into community (3), ability of PMD to work (4), readiness of the community to accept PMD (5), helping to integrate PMD into community (6). In 2006 the most stigmatizing attitudes towards social inclusion of PMD were expressed by general public and most positive – by mental health professionals. Attitudes towards the ability to work of PMD, active inclusion of PMD into community and readiness of the community to accept PMD were least positive whereas attitudes towards helping PMD to integrate into community were the most positive.

Conclusions

In Lithuania a stigmatizing and rather paternalistic approach towards social inclusion of PMD was observed in 2006. Changes in attitudes will be presented after analyzing data of 2015 survey hypothesizing that implementation of mental health and social care policies on social inclusion in Lithuania for the last decade have had a positive impact on changing public attitudes towards social inclusion on PMD.

Key message

- Stigmatizing public attitudes towards social inclusion of people with mental disabilities may change in relation to implemented mental health policies

Children institutionalization and mental health outcomes: from policy to practice

Marija Veniute

M Veniute[1], J Lindert[2,3], D Puras[4]
[1]Vilnius university, Faculty of Medicine, Institute of Public Health, Lithuania
[2]University of Emden, Germany,
[3]Brandeis University, Waltham, USA
[4]Vilnius university, Faculty of Medicine, Clinic of Psychiatry, Lithuania
Contact: marija.veniute@mf.vu.lt

Background

Around 8 million children are living in institutional or in foster care worldwide, 42% of them are living in Central and Eastern Europe (e.g. in Lithuania). Lithuania struggles to change its childcare system from predominantly based on large-institution care to one that has a continuum of services and is family-focused. In 2012, in Lithuania 10,813 children were placed in alternative care settings, of them 38.1% - in institutions. Studies have shown that children who were removed from their homes experience not only significant trauma but also were more likely than other children to experience negative mental health and wellbeing outcomes as adults. The paper aims to 1) review data and context of the removal decision, understanding the influence of the individual and organizational factors, 2) identify clusters of family problems, leading to placements in institutions in Lithuania and 3) identify possibilities to evaluate long-term trajectories following early child welfare involvement and the association of these trajectories with subsequent physical and behavioural well-being in Lithuania.

Methods

Review of secondary and meta data from state, non-state and international sources.

Results

Most children who are placed in institutional care were under 10 years old (52%), 33% of those are under 3 years old. The major reasons for the placement of children in alternative care were improper care, neglect, use of physical or psychological violence (72%), or parents' temporary inability to take care of them (14%). However, the decision to remove children from their families is particularly complex; yet surprisingly little is understood about this decision-making process.

Conclusion

Lithuania is still in transition from institutional towards family-based care for children. Instruments to evaluate accuracy of placement are highly needed. Furthermore, a state strategy on child-centred approaches and prevention of separation is highly needed.

Key message

- Reorganization of children institutional care system in Lithuania highly needs child-centred approaches and prevention of separation

Developing a platform for evidence-informed suicide prevention policy in Sweden

Jenny Telander

J Telander
The Public Health Agency of Sweden, Sweden
Contact: jenny.telander@folkhalsomyndigheten.se

Issue/proble

Suicide is recognized as a global public health concern. In Sweden, it is the leading cause of death among men aged 15–45. Though a better understanding of suicide prevention policies is developing, major steps can still be made within the field. Using a participatory approach, a national platform for evidence-informed suicide prevention policy was designed. This approach may serve as an example for other countries aiming to implement their national suicide prevention policies.

Description of the problem

To enhance implementation of Sweden's national suicide prevention strategy, The Public Health Agency was assigned to improve evidence-informed policy and practice. From May 2014 to February 2015, participatory based activities including interviews, meetings and a workshop involved key stakeholders in the policy development process. A stakeholder analysis and needs assessment were also conducted. An analysis of different alternative ways to refine the structural organization of evidence-informed suicide prevention then formed the basis of a governmental policy proposal.

Results

The participatory approach allowed for stakeholders to come up with an innovative and anchored policy platform comprising two main organizational changes on national and regional level. First, a coordinating body on both levels was proposed in order to mobilize stakeholders into concerted action and to facilitate evidence-informed policy and practice. Second, an interest and advocacy group was proposed to improve the participation of civil society. Finally, a new financial structure was proposed with a focus on sustainability and equity.

Lessons

The approach used proved beneficial to facilitating the interaction and participation of a large number of stakeholders in a broad and complex field of public health such as suicide prevention. It strengthened collaboration and improved stakeholders' understanding of their respective roles and responsibilities.

Key messages

- A participatory approach, involving key stakeholders across several government sectors, is conducive to designing a platform for evidence-informed policy and practice
- A national suicide prevention strategy can benefit from a platform that supports the structural organization of evidence-informed policy and practice on national, regional and local level

Area deprivation and generalized anxiety disorder in a British community cohort

Olivia Remes

O Remes, L Lafortune, N Wainwright, P Surtees, A Bhaniani, R Luben, C Brayne, K Khaw
Department of Public Health and Primary Care, University of Cambridge, Cambridge, UK
Contact: ror21@cam.ac.uk

Generalized anxiety disorder (GAD) is one of the most common anxiety disorders, and has been associated with disability, impairment, and high health service use. The link between social and health inequalities has been well-established. Area deprivation has been associated with mortality and depression, however, its association with GAD is less clear. We aimed to examine whether area-level deprivation is associated with past-year GAD over and above individual-level circumstances in a British community cohort.

This was a population-based study capturing individual-level data on socio-demographics, medical histories, disability level and DSM-V psychiatric disorders using detailed health and lifestyle questionnaires. Quartiles of the Index of Multiple Deprivation were used to examine area-level deprivation. A total of 11,422 women and 8,878 men over the age of 40 were recruited between 1996 and 1999 through general practice age-sex registers in Norfolk, UK. To account for intra-cluster correlation, a population-average model using generalized estimating equations was constructed.

In total, 2.6% of women and 1.8% of men had past-year GAD. Women living in the most deprived quartile had a significantly higher risk of developing GAD than women living in the least deprived quartile (OR = 1.56, 95% CI: 1.12, 2.16), and this association persisted after adjusting for individual- and area-level covariates. No association was observed for men (OR = 1.01, 95% CI: 0.65, 1.59). The association with deprivation was strongest for women with more than 3 lifetime episodes of GAD or who experienced episode onset at age 30 or younger.

These novel findings are of particular importance to clinicians and public health authorities. Policy focusing on mental health should address area-level characteristics and target women living in deprived areas. Further, health professionals living in deprived areas require adequate training to appropriately screen for, diagnose, and treat GAD.

Key message

- Policy focusing on mental health should address area-level characteristics and target women living in deprived areas

Structural determinants of internalized homonegativity in German men who have sex with men

Daniel Hagen

D Hagen
Global Institute of Public Health, New York University, USA
Contact: daniel.hagen@rocketmail.com

Background

Internalized homonegativity (IH) has repeatedly been found to be a risk factor for adverse mental health outcomes and sexual risk-taking in men who have sex with men (MSM). Social-epidemiological studies from the United States suggest that IH varies substantially according to features of the social environment surrounding MSM, e.g. anti-gay prejudice or the presence of same-sex couples. To date, no research on the effect of structural stigma on MSM has been conducted in a European country.

Methods

We analyze responses of more than 30,000 MSM living in the western states of Germany to the 2010 European MSM

Internet Survey (EMIS). With a common scale for IH as the outcome variable, we run bivariate analyses and Generalized Estimating Equations (GEE) to assess the net impact of an objective composite index surrounding MSM that captures social-environmental characteristics such as religious beliefs, share of conservative voters, and anti-gay attitudes across 75 zip code areas. Indices that measure public attitudes towards gender inequality and immigration are used to test for specificity of this relationship. All structural variables were generated by means of zonal statistics and data mining techniques using openly available census and opinion survey data.

Results

Preliminary results indicate that MSM living in ''hostile'' communities have consistently higher IH scores than MSM in places with low levels of structural stigma. This relationship persists after adjusting for individual-level covariates such as HIV status, and it is specific to stigma against MSM.

Conclusion

Space and context matter when it comes to how MSM feel about themselves. This suggests that individuals with stigmatizing social environments are at a higher risk of poor mental health outcomes and unprotected sexual intercourse. More research is needed to verify these findings and, if they hold true, raise political and public awareness for the impact of homophobia on sexual minority health in Europe.

Key messages

- Social environments with anti-gay stigma put MSM at a higher risk of internalizing society's negative attitudes towards them, which may adversely affect their health and well-being
- Spatial-epidemiological analyses are potent tools in assessing the effect of structural factors on the health of vulnerable minority populations

4.N. Pitch Presentations: The effect of alcohol on children

Resource use data from sickness funds: their story about alcohol intoxication in minors in Belgium

Guido Van Hal

M Callens[1], J de Dooy[2], G van Hal[3]
[1]National Alliance of Christian Sickness Funds, Brussels, Belgium
[2]Antwerp University Hospital, Antwerp, Belgium
[3]University of Antwerp, Antwerp, Belgium
Contact: guido.vanhal@uantwerp.be

Background

Results of the Belgian National Health Survey show that 14% of people aged 15–24 years are drinking six or more glasses of alcohol on one occasion at least weekly. This leads to alcohol intoxication (AI) with possible acute life threatening complications such as unconsciousness. Moreover, AI often results in aggression, unsafe sexual behaviour, accidents and in the long run possible cognitive damage.

Methods

The Intermutualistic Agency in Belgium can estimate alcohol abuse in minors based on claim records on reimbursed health care. They counted the number of unique minors (12-17 years) per year who were making use of an emergency department or were being admitted to hospital for one night, and in whom a blood alcohol concentration (BAC) was assessed on the same day. Physicians only prescribe a BAC test when there is a strong suspicion of AI so the test is almost always positive. Therefore, this registration allows us to get an idea of the number of minors suffering from an AI.

Results

In 2013, there were 2,376 minors with a suspicion of AI, much higher than reported by a study in the Netherlands. In Belgium, the number slightly increases: 30/10,000 in 2008; 31/10,000 per year during the period 2009–2011, 32/10,000 in 2012 and 33/10,000 in 2013. AI was more prevalent in boys compared to girls and 7% were registered more than once in 2013. Incidence was higher in minors with a lower socio-economic status. Half of the cases occurred during the weekend or a holiday.

Conclusions

AI in Belgian minors seems to be high. Our data could lead to more awareness in young people and their parents. Stronger enforcement of existing legislation by the authorities is also of importance. Moreover, unlike most of the EU-member states, Belgium has no complete ban on the sale of alcohol to minors. A registration system in emergency departments and among pediatricians, could make the data more reliable, since the reason for assessing the BAC and the result of this assessment remain unknown.

Key messages

- Alcohol intoxication in Belgian minors is not a rare phenomenon and seems to be increasing
- A registration system in emergency departments and among pediatricians in Belgium is recommended to make data on alcohol intoxication in minors more reliable

Transgenerational effect on birth outcomes: natural experiment of increasing strong beer access

Jeroen De Munter

JSL de Munter, F Rasmussen
Child and Adolescent Public Health Epidemiology, Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden
Contact: jeroen.de.munter@ki.se

Background

Oogenesis (the creation of egg cells) occurs during fetal life. Harmful exposure during oogenesis might be a sensitive period in which epigenetic traits get established. In this paper we postulate transgenerational effects on birth outcomes in offspring whose mothers were exposed in utero to a policy change that facilitated a more easy access of strong beer.

Methods

The study design is a natural experiment of a policy change, which occurred in two administrative areas in Sweden (intervention area) between 1 November 1967 and 15 July 1968. The other administrative areas were control with the border areas considered for ''spill-over'' effects. The population consisted of children from in utero exposed mothers (n intervention=10.592, n control=70.102). Sub-cohort A had an estimated conception date prior to the policy change, and sub-cohort B during the policy change. All measures were register linked from national registers. Estimates were calculated using hierarchical (GEE) education- and smoking-adjusted models taking clustering of children within mothers into account.

Preliminary Results

There were no differences in birth weight between intervention area and control. However, offspring in the border area had higher mean birth weight than in the control area (20.3 grams, 95% Confidence Interval: 4.6-35.9). Mean birth length was slightly higher in the intervention area (0.20 cm, 0.14-0.26). After stratification for the two sub-cohorts, we observed stronger associations in sub-cohort B. Additionally, there was a small difference in head circumference between children born in the border area compared to the control area (0.9mm, 0.3-1.6).

Conclusion

The results from this study suggest that there is some evidence that the raised alcohol availability through a population wide policy may be related to increased transgenerational birth outcomes in the offspring. Although in absolute size the increase was rather small, the findings are in line with epigenetic mechanisms.

Key messages

- The results may suggest a transgenerational epigenetic effect on birth outcomes after a policy change
- This study highlights long term implications on public health of an alcohol related policy change

Binge Drinking characterization among French Students

Laurent Gerbaud

Pr L Gerbaud[1,2], J Hazart[1,2], Dr M Blanquet[2], Dr A Debost-Legrand[2], Dr A Perrève[1], S Mme Léger[2,3], Pr S Maurice[4], ADSSU working group
[1]Service de Santé Universitaire, Clermont-Ferrand; France
[2]Service de santé publique, EA 4681, PEPRADE, CHU de Clermont-Ferrand Université d'Auvergne, Clermont-Ferrand, France
[3]Laboratoire de mathématiques UMR CNRS 6620, Université Blaise Pascal, Clermont-Ferrand, France
[4]ISPED, Université de Bordeaux, Bordeaux, France
Contact: lgerbaud@chu-clermontferrand.fr

Background

Binge Drinking (BD) is mostly defined as dinking over five (or six) alcohol units (AU) in a short period (mostly in 30 minutes). In a national cross sectional study among French students, we have tried to analyze factors related with BD, but had some problems using the common definition and we proposed another approach of this phenomenon.

Methods

In 20 university centers, students were asked by an email to fill in an anonymous internet questionnaire about their habits, way of life and addiction between February and May 2013. 17 items were related to alcohol consumption. Analysis (combining logistic regressions, analytic hierarchic processes and main components analyses) were done to assess the links between alcohol consumption, BD, and other addictions and risks such as violence and accident

Results

36427 students filled in the whole questionnaire. 12,3% (4481) declare frequent drunkenness and 27,4% (9981) drinking over five AU at least one time. Analyses show that 7,2% (2623) combine the most frequent drunkenness and highest level of consumption. They were mainly men, more exposed to violence (as victims as well as authors) and had higher frequencies of tobacco and cannabis consumption. Most of the usual questions (such as CAGE questionnaire, the quantitative level of AU and/ or drunkenness,...) failed to identify them correctly. Only three combined question (amnesia post alcohol, inability to stop to drink when they started and missing to do things due to alcohol) were able to identify them with sensibility and specificity over 80%.

Conclusions

Usual quantitative assessment and alcohol questionnaire failed to identify students having the most at risks practices of BD. We proposed a new score based on three questions that may be used among students to screen for those with higher risk of worrying BD.

Key messages

- quantitative assessment of binge drinking and usual questionnaire on alcohol problems may not work
- a new score based on amnesia, inability to stop and renunciation works better to identify worrying binge drinking

'Butt-chugging' a new way of alcohol assumption in young people

Rafi El Mazloum

R El Mazloum[1], R Snenghi[1], S Barbieri[2,3], P Feltracco[2], L Omizzolo[2], G Vettore[2], RM Gaudio[3], M Bergamini[3]
[1]Department of Cardiac, Thoracic and Vascular Sciences. Section of Legal Medicine. University of Padova, Italy
[2]Department Emergency Urgency Padova, Italy
[3]Department Medical Science University Ferrara, Italy
Contact: rafi.elmaz@gmail.com

Background and Goal of Study

Excessive assumption of alcohol is one of the leading cause of admission to the Emergency Department. Acute alcohol intoxication, due to excessive or hazardous drinking, usually lead to alcohol related harm with various clinical manifestation.

Materials and Methods

Alcohol enema, or butt-chugging, is the introduction of alcoholic drinks through the anus into the rectum. The bypass of the first pass metabolic effect of the rectal absorption of ethanol allow a higher Blood Alcohol Concentration (BAC) and, consequently, greater potential for central nervous system depression; in addition there's the lack of the body's ability to throwaway the toxin by vomiting. The recent increase of complications to enema overuse and abuse is due to popularity of various erotic practices and sexual exploration.

Results and Discussion

A young 18 years old girl was conducted by a friend to the ED in a state of altered consciousness. GCS 9, tachycardia, slightly hypertension and metabolic acidosis were found. The BAC was 2.12 g/L. The friend reported that the girl lost consciousness after butt-chugging, an alcoholic game, and during the sexual practice with introduction of alcoholic drinks in the rectum. The girl was transferred to the short-stay observation with focus management, monitoring, appropriate treatment and was discharged after 2–3 days without sequelae. News forms of alcohol assumption are described, like tampons ethanol–soaked, vodka eyeballing, ethanol inhalation, etc., and these forms of assumption are affecting also younger people.

Conclusions

These unconventional ways of alcohol assumption are common in social media and seems to be a new and hazardous trend among young students. It's essential to develop appropriate methods of health education for young people avoiding these dangerous forms of exposure, modifying behaviors, reducing risks, prevention, health education and promotion, improving the quality of life and prolonging it.

Key messages

- Unconventional ways of alcohol assumption are common in social media and seems to be a new and hazardous trend among young students
- Develop appropriate methods of health education for young people avoiding these dangerous forms of exposure

A qualitative study to explore the use of energy drinks by children and young people in England

Shelina Visram

S Visram[1], SJ Crossley[1], M Cheetham[2], AA Lake[1], D Riby[3]
[1]Centre for Public Policy and Health, Durham University, Stockton-on-Tees, UK
[2]Health and Social Care Institute, Teesside University, Middlesbrough, UK
[3]Department of Psychology, Durham University, Durham, UK
Contact: shelina.visram@durham.ac.uk

Background

Marketing of commercial energy drinks appears to target young people, although these drinks are generally not recommended for consumption by under 16s. Teachers in the UK have expressed growing concern about the effects on classroom behaviour, but little research has been conducted with school-age children. This study aimed to investigate children's perceptions of energy drinks and what effects they are perceived to produce, in order to inform the development of tailored resources and interventions.

Methods

Eight focus groups have been conducted with pupils (n = 37) from primary and secondary schools in England, in addition to semi-structured interviews with school staff (n = 11). Interviews with parents are also underway. All data have been transcribed verbatim and analysed using the constant comparative approach. Preliminary analyses and intervention options will be discussed with stakeholders, including children and families, at an upcoming participatory workshop.

Findings

Emerging themes include the role of branding and marketing on young people's choices, in addition to the influence of parents, siblings and peers. The data highlight similarities and differences between the children's views and those of the adult participants, as well as gender and age differences amongst the children. There is heterogeneity in the motivations, perceived benefits and risks, and reported effects associated with energy drink consumption. Suggestions have been put forward by participants to address these issues, and subsequent discussions will consider how these might work, and for whom.

Conclusions

Although data collection is ongoing, a number of important issues have already begun to emerge. Given that this is the first in-depth UK-based study on this topic, we are confident that it will continue to generate findings of interest to diverse academic, practitioner and lay audiences.

Key messages

- Branding and marketing play an important role in young people's consumption choices
- There are key differences between children's views on energy drinks and those of adults, as well as gender and age differences amongst children

Adolescent drinking: a touch of social class? Findings from a 2006 Norwegian school survey

Hilde Pape

H Pape[1], *T Norström*[2]
[1]Norwegian Institute for Alcohol and Drug Research, Oslo, Norway
[2]Swedish Institute for Social Research, Stockholm University, Sweden
Contact: hp@sirus.no

Backgound

Research on the association between parental socio-economic status (SES) and adolescent drinking behavior has produced mixed outcomes. There is, however, ample evidence of an SES gradient in general parenting style, and one may assume that exposure to parental heavy drinking and other parental alcohol socialization factors also vary with SES. Against this background, we assessed associations between parental SES and adolescent drinking, taking both general and alcohol-related parenting practices into account.

Method

Data stem from a sample of 13–18 year-olds (n = 17,761) who participated in a Norwegian school survey in 2006 (response rate: 84%). We applied parents' educational level as indicator for SES, and performed age-specific analyses to explore whether it was associated with any drinking and any episodes of intoxication in the past year. We also assessed the association between SES and the frequency of intoxication among those who had consumed alcohol (n = 10,170).

Results

The magnitude of proportion that had used alcohol as well as the proportion that had been intoxicated were both inversely related to SES, but only among the 13–16 year-olds. Exposure to parental drunkenness, parental acceptance of adolescent drinking, and indicators of suboptimal parenting more generally also correlated with SES. When these confounders were controlled for, the SES gradient in underage drinking was no longer statistically significant. The frequency of intoxication among the drinkers was also inversely related to SES, yet the association disappeared when parental alcohol socialization factors and indicators for general parenting style were taken into account.

Conclusions

This study suggest that parental SES is inversely related to early drinking and to the frequency of heavy drinking episodes, which may be attributed to social inequality in alcohol-related and general parenting practices. Hence, preventive measures targeted at parents should give priority to subgroups in the population with low SES.

Key messages

- Adolescent drinking is inversely related to parental socio-economic status, implying that it is particularly important to implement preventive measures target at low SES groups
- Parenting practices that increase the risk of adolescent heavy drinking are inversely related to SES, which may explain why adolescents in low SES groups drink more heavily

Is the association between youth drinking and violence modified by socio-economic status?

Thor Norström

T Norström[1,2], *H Pape*[2]
[1]Swedish Institute for Social Research, Stockholm University, Sweden
[2]Norwegian Institute for Alcohol and Drug Research, Oslo, Norway
Contact: totto@sofi.su.se

Background

Research suggests that adolescents from low socio-economic status (SES) groups have a

risk of alcohol-related harm (including violence) that is larger than what can be expected from their level of drinking. This suggests that the risk functions between drinking and harm may differ across SES-groups, being steeper in low-SES groups. The aim of the present paper is to pursue this issue by assessing whether the association between drinking and violent behaviour is modified by SES.

Method

Data come from a cross-sectional Norwegian school survey carried out 2006 (response rate: 84%). We focused on the age-group 14–17 years (n = 7,661). Drinking was measured by (i) frequency of drinking; (ii) frequency of heavy episodic drinking. Violent behaviour was proxied by a summary measure concerning involvement in: (i) fights in connection with drinking; (ii) vandalism in connection with drinking. The reference period for drinking as well as violence was the past 12 months. Abstainers were excluded. SES was measured by parental education (low, high). A set of potential confounders was included. The association between drinking and violent behaviour was estimated by ordinary least squares regression.

Results

Drinking, however measured, was about 50% higher in the low- than in the high-SES-group. However, the SES-gradient in violent behaviour was even larger with a ratio of 2.6 between the low- and the high-SES-group. The association between drinking (however measured) and violent behaviour was positive and statistically significant in the low- as well as in the high-SES-group, although it was significantly stronger in the low-SES-group (t = 3.13).

Conclusions

The elevated rate of alcohol-related violence in the low SES-group seems to result from more drinking but also from a stronger association between drinking and violence in that group compared to the high SES-group.

Key messages

- Our study suggests that drinking has a stronger effect on adolescent violence in low-than in high-SES-groups
- Alcohol prevention seems to be particularly urgent for low-SES-groups

4.O. Pitch Presentations: Health Promotion in specific settings

Promoting Young Prisoners' health in 7 European Countries

Fatemeh Rabiee

F Rabiee[1], S Bibila[1], M MacDonald[1], C Weilandt[2]
BCU, Birmingham, UK,
WIAD, Bonn, Germany
Contact: Fatemeh.rabiee@bcu.ac.uk

Background

Young Prisoners are often more disadvantaged than their counterparts in the community and this can both have a negative impact on their health and be a factor in their initial offending (Prison Reform Trust, 2012).

Aim

To map health promotion programme, identify the health promotion needs of young prisoners and to develop and improve health promotion programme targeting young people in prison settings in 7 European countries.

Method

A mixed method approach was taken. 212 prison staff and 576 young prisoners (14-24 years old) were surveyed. In addition, 106 individual interviews with prison staff, field specialists and NGO members and 19 focus group interviews with 194 young offenders were carried out in Bulgaria, the Czech Republic, Estonia, Germany, Latvia, Romania and the UK.

Findings

Both set of data highlighted a number of similar, but also some diverse areas of unmet need for health promotion programme in prison settings across these diverse seven EU countries. No consistency of approach exists within and between countries regarding health promotion policy, guidance, resources and programmes for young prisoners. Health promotion needs identified by both staff and prisoners were broad and covered physical and mental health care, prevention of infectious disease (including sexually transmitted diseases and hepatitis), prevention of suicide and self harm, sexuality and contraception, healthy relationships, information on drug and alcohol abuse, healthy eating, availability of sport facilities, anger management training, coping with custody and pre-release programmes including life skills.

Conclusion

Moving beyond physical and mental healthcare, health promotion programmes should focus on developing prisoners' life skills, including communication skills, vocational training, cooking skills, social skills and relationship building. Programmes should also develop prisoners' self-esteem and assertiveness in order to prepare them for a good quality life after their release. Redressing health inequality in EU prison settings requires establishing National and EU standards.

Key messages

- Tool kits developed and disseminated based on identified health promotion needs across these prison settings
- Training package incorporating examples of best practice re policy and programmes has developed and disseminated in prison settings across these 7 EU countries

Mental health and its relationship on avoidable mortality among Portuguese prison inmates, 2004–2013

Bárbara Aguiar

B Aguiar[1], JC Santos[2], DN Vieira[1]
[1]University of Medicine of Beira Interior, Coimbra, Portugal,
[2]Faculty of Medicine of Lisbon, Lisbon, Portugal,
Contact: mdbarbaraaguiar@gmail.com

Background

The mortality incidence rate in Portuguese prisons, in 2013, was 44.5/10^3 inmates and in 2014 it increased to 52.1/10^3 inmates. Of all these deaths, respectively, 21% and 30.1%, were due to suicides. In 2014, the proportion of suicides was the highest of the last 14 years. The aim of the study was the characterization and analysis of deceased inmates, in Portuguese prisons, from 2004 to 2013, and its relationship with psychiatric pathology records.

Methods

A cross-sectional study was done. Out of a population of deceased inmates ($n = 721$), from 2004 to 2013, a sample was calculated. After applying the inclusion ($age >= 18 < 70$ years old) and exclusion criteria, 229 medical legal and criminal records were evaluated. Portuguese prisons were randomly selected. A descriptive analysis and the chi-square test (X2) was done using the SPSS statistical program.

Results

The inmates were all male and had a median age of 41 years old ($min = 18; max = 69$) and 45.1% were single. The most representative age group (41.9%), was among the 26–40 age group, followed by the 41–55 age group (38.9%). Regarding the etiology of deaths, 2 groups of causes were signalized (natural death and violent death).The cause of natural death was of 57.5% and violent death (suicide and homicide) was of 42.5%. Psychiatric pathology history had a prevalence of 23.1% among deceased inmates. It was statistically proved utilizing the X2 test, significant relationship between the frequency of preceding psychiatric pathology and the type of violent death ($p < 0.0001$). There was statistically significance, through the X2 test, relating suicide attempts and/or self-injury and a history of psychiatric disorder prior to incarceration ($p < 0.0001$).

Conclusions

The deceased inmates are quite young. The proportion of violent deaths is high, requiring preventive interventions. Association was found between psychiatric disorders and violent deaths, as well as attempted suicides and/or self-injury, identifying psychiatric illness as a risk factor, which increases the probability of early death. Therefore, it is necessary to create strategies of change, which can substantially reduce avoidable mortality, particularly the violent deaths by suicide in Portuguese prisons.

Key messages

- The cause of natural death was of 57.5% and violent death (suicide and homicide) was of 42.5%
- Association was found between psychiatric disorders and violent deaths, as well as attempted suicides and/or self-injury

'The silent battle for the right to safe sex': a qualitative study from Ukraine

Nathalie Andersson

N Andersson
Lund University, the Faculty of Medicine, Copenhagen, Denmark
Contact: nat9andersson@gmail.com

Background

Ukraine has the most severe HIV/AIDS epidemic in the European region with HIV incidence rate is 3.2 times higher among young females than males, indicating women are disproportionally affected. Simultaneously, usage of male condoms is very low among Ukrainian adolescent females. The aim of this qualitative study was therefore to gain deeper understanding of the factors that influence condom use among adolescent females living in Ukraine.

Methods

12 in-depth semi-structured interviews were conducted between February-March 2014. The eligible participants were recruited from the Youth Friendly Clinic in Kiev by using

purposive sampling technique. The data analysis was performed applying the analytical manifest and latent qualitative content analysis method.

Findings

Data analysis yielded an overarching theme 'The silent battle for the right to safe sex' with four emerging themes: 'Struggling with unmet needs for security and dreams for a better life'; 'Trapped in sexually repressive taboos'; 'Trust as the bedrock of a relationship'; 'Seeking gender equality while being stuck in culturally rooted gender roles'. The themes describe the key barriers that the girls experience with regard to being able to realize the right to safe sex. The overarching theme illustrated how combinations of these factors create unresolved complex dilemmas for adolescent girls, resulting in unsafe sexual behaviour.

Conclusions and implications

The research is demonstrated, that combination of contextual factors, i.e. the need for socio-economic security, repressive socio-cultural beliefs, gender power imbalance in sexual relations and unequal social gendered norms are the key obstacles to consistent condom use among adolescent females living in Ukraine. The study is emphasized the need for universal sexual education and targeted health promotion strategies with focus on gender equality to enable young women to exercise their right to safe sex.

Key messages

- An introduction of early curriculum-based gender-sensitive sexual education with central focus on adolescent SRHRs is vital to achieve the transformation of culturally-rooted gender roles
- Public health strategies should put more emphasis on women empowerment and gender equality to promote adolescent women healthy sexual behaviour and stop further transmission of HIV /STIs in Ukraine

Parenting very preterm infants and stress in Neonatal Intensive Care Units

Claudia de Freitas

I Baía[1,2], M Amorim[1], S Silva[1], C de Freitas[1,3], E Alves[1]
[1]EPIUnit - Institute of Public Health, University of Porto (ISPUP), Porto, Portugal
[2]Department of Clinical Epidemiology, Predictive Medicine and Public Health, University of Porto Medical School, Porto, Portugal (FMUP)
[3]Centre for Research and Studies in Sociology (CIES), University Institute of Lisbon
Contact: ines.baia@gmail.com

Background

Assessment of parental stress in Neonatal Intensive Care Units (NICU) may help to plan individualized interventions. This study aims to identify sources of stress in mothers and fathers of very preterm infants hospitalized in NICU, and their association with sociodemographic, obstetric and infant's characteristics.

Methods

Parents of very preterm infants hospitalized in all level III NICU in the Northern Health Region of Portugal were consecutively and systematically invited to participate (July 2013-June 2014). Stress was assessed through the Parental Stressor Scale in NICU, comprising 3 dimensions (Sights and Sounds, Baby Looks and Behaves, and Change in Parental Role) and a final question about Overall Stress. Each item ranged from 1 (not at all stressful) to 5 (extremely stressful). The present analysis includes 211 participants: 120 mothers and 91 fathers. Mean differences (β) and the respective confidence intervals of 95% (CI95%) were estimated using multiple linear regression models, stratified by gender and adjusted for age, educational level and all statistically significant variables for each subscale.

Results

Mothers classified the experience of hospitalization as significantly more stressful than fathers, in all subscales and Overall Stress. Change in Parental Role was the more important source of stress for both mothers (Median(IQR): 4.1(3.2–4.7)) and fathers (Median(IQR): 3.2(2.4–4.0)). For mothers, multiple pregnancy was associated with lower levels of stress regarding Change in Parental Role (β=–0.597; CI95%=–1.020 to −0.174) and Overall Stress (β=–0.603; CI35%=1.052 to −0.153). Having $\geq$30 years old was found to be a significant predictor for decreased fathers' stress related to all subscales and Overall Stress.

Conclusions

Stress levels were lower among older fathers. Mothers revealed higher levels of stress, being protected by multiple pregnancy. This knowledge may be used in the design and implementation of family-centered care.

Key messages

- Mothers classified the experience of hospitalization of a very preterm infant in NICU as significantly more stressful than fathers
- Findings raise awareness about gender, age and multiple pregnancy as the main characteristics associated with the parental perception of stress during hospitalization in NICU

Generating trust in Preventive Pediatric Primary Care within the context of personalized medicine

Elena Syurina

EV Syurina[1], K Hens[2], W Dondorp[1], FJM Feron[3]
[1]Department of Health, Ethics and Society, Maastricht University, Maastricht, The Netherlands
[2]Centre for Biomedical Ethics and Law, Univesity of Leuven, Leuven, Belgium
[3]Department of Social Medicine, Maastricht University, Maastricht, The Netherlands
Contact: e.syurina@maastrichtuniversity.nl

With the rapid development in of genomics preventive pediatric primary care (PPPC) in particular are undergoing a paradigm shift. A main characteristic is the urge to move away from the concept of ''find and fix'' towards ''predict and personalize''. However, no general agreement exists as to how personalized healthcare knowledge should be used in pediatrics. In order for the healthcare transformation to be successful, a basic requirement is a close collaboration between parents and physicians, as these are the major stakeholders in the process. Such collaboration only works if it is based on mutual trust.

Even more, in many countries now we see a situation of reduced trust between physicians and the parents. We about anti-vaccination movements and groups protesting an extensive information collection within PPPC. This was also supported by the results of our research into parental opinions on the issue of use of certain data by the PPPC services in the Netherlands. We identified some common misconceptions that include ideas that PPPC can and will take the child out of the family in case of problems.

This presentation proposes a set of policy steps to be taken to invite parental support for the transition to a personalized approach for the benefit of the children. Among the suggestions raised is the need to adequately address possible concerns of the parents regarding the use of health information, more evidence-based tailoring of the health information provision. As parental concerns may arise from a limited understanding of risk profiling, physicians need to explain how this approach identifies both the strong sides of each child as well as its weaknesses and health risks. Other directions for action include: further empowering of the parents, taking steps towards improving contact, timely addressing the fears of discrimination and actions on the societal level to communicate the aims and goals of the PPPC to avoid prejudice.

Key messages

- There is a general problem of trust between parents and primary pediatric care physicians
- we propose steps to improve situation: tailored communication of risks, more time for communication and parental emowerment

Built and social environmental determinants of leisure-time physical activity in German preschoolers

Michael Eichinger

M Eichinger, B Genser, F De Bock
[1]Mannheim Institute of Public Health, Social and Preventive Medicine (MIPH), Mannheim Medical Faculty, Heidelberg University, Mannheim, Germany
Contact: michael.e.eichinger@gmail.com

Background

Past studies have identified built and social environmental factors as important determinants of physical activity (PA) in school children. While preventive actions might be most effective if implemented early in life, little is known about associations between environmental factors and PA in preschool age. Our study seeks to fill this gap.

Methods

Cross-sectional data of 1134 children in 52 preschools in South Germany were collected between 2008–2009. Minutes spent in moderate-to-vigorous physical activity during waking time (MVPA, outcome) were measured by accelerometry and heart rate monitoring (Actiheart). The built and social environment was quantified by 1) subjective parental perception, 2) objective information e.g. on the distance to local infrastructure 3) family social context and 4) county-level data on socioeconomic indicators (INKAR 2013). Associations with objectively measured MVPA were tested by covariate-adjusted linear multilevel regression (conducted in 2015).

Results

737 preschoolers (mean age: 4.81 yrs, males 50%) with complete data were included in the analyses. Besides significant point estimates for gender and age, covariate-adjusted multilevel models showed that childrens' MVPA during weekends was positively associated with parental levels of leisure-time PA (beta=1.83, $p < 0.05$) and childrens' regular participation in organized sports activities (beta = 2.04, $p < 0.05$), but NOT with any built or objective environmental factors. Parental perception of environmental safety with regards to traffic showed a trend to significance (beta = 3.32, p = 0.059). Results did not change with exclusion of sports participation as a potential proxy of MVPA.

Conclusions

Social environmental factors such as positive parental role models and perceived environmental safety are more important correlates of preschoolers' leisure-time MVPA than any built covariates. PA interventions in preschoolers should specifically target these factors.

Key messages

- Social environmental factors as well as parental lifestyle and perceptions are more important determinants of preschoolers' physical activity than built environmental factors
- In order to increase physical activity levels of preschoolers public health interventions should explicitely target these factors

Cost-effectiveness of a playground based intervention to improve physical activity

Gerry Richardson

G Richardson, C Giannopoulou, S Barber, D Bingham
Centre for Health Economics, University of York, UK
Bradford Institute for Health Research, UK
Contact: gerry.richardson@york.ac.uk

Background

Healthy behaviours such as physical activity can be influenced in childhood and are often maintained into adulthood. These behaviours generate longer term benefits for children including health related quality of life (HRQoL) and may also influence HRQoL of parents. Playground interventions have been shown to increase physical activity in school aged children but there are few pre-school, playground-based interventions. This pilot study is the first to assess the potential cost-effectiveness of such a programme.

Methods

This cost-effectiveness analysis (CEA) is based on data from a two-armed pilot cluster trial comparing "Pre-schoolers in the Playground" (PiP) with usual practice and makes a preliminary assessment of the value for money of the PIP intervention. The pilot trial is set in a community in Bradford, UK; 164 children aged between 18 months and 4 years old participated in the study. The intervention, delivered in school playgrounds, consists of six, 30 minute sessions per week available to families for 30 weeks. The CEA is conducted from the perspective of the National Health Service (NHS) and personal social services and uses 2013/14 prices. HRQoL is assessed for both parents and children using Quality Adjusted Life Years (QALYs) and PedsQL respectively.

Results

Parents HRQoL improved by 0.058 QALYs (95% CI −0.009 to 0.125) at an additional cost of £1173 (−£903 to £3,250) per participant generating an incremental cost-effectiveness ratio of £20,215, which is borderline cost-effective; there is a large degree of uncertainty around the results. PedsQL shows that the children in the intervention group had an improved HRQoL over the trial period (increase of 1.5 points) while the control group showed a reduced HRQoL (decrease of 0.2). These results are preliminary.

Conclusions

There PIP intervention is potentially cost-effective but the degree of uncertainty around results means that further studies and analyses would be informative.

Key messages

- This intervention to increase physical activity in preschoolers is potentially cost-effective
- There is a large amount of uncertainty around the results and further analysis would be informative

4.P. Pitch Presentations: Performance in primary care

Time spent in direct patient care among Norwegian doctors from 1994 to 2014: a panel study

Judith Rosta

J Rosta[1], OG Aasland[1,2]
[1]Institute for Studies of the Medical Profession/NMA, Oslo, Norway
[2]Institute of Health and Society, University of Oslo, Norway
Contact: judith.rosta@legeforeningen.no

Background

Doctors' time spent in direct patient care is a public health issue. A high level of doctor care hours is associated with better treatment outcomes and satisfied patients and doctors. In Norway, discussions in media and within the profession itself suggest that the number of doctor hours with direct patient care is declining. This study analyses how this decline differs between doctors in different positions and specialties.

Methods

The study population is an unbalanced panel of 1,300-1,800 doctors in Norway with postal surveys performed in 1994, 1995, 1996, 1997, 2000, 2002, 2004, 2006, 2008, 2010, 2012 and 2014. Response rates range from 65% to 95%. Outcome measures are self-reported total weekly working hours and hours spent in direct patient care. Statistical significance is assessed with 95% confidence intervals (CI) where non overlapping CIs for proportions or interval variables indicate statistically significant differences.

Results

From 1994 to 2014, weekly working hours remained stable for all specialty and position groups, except for full time researchers, who reported a significant decline. Time in direct patient care did not change significantly for GPs (35h vs 34h), private practice specialists (34h vs 34h) or researchers (10h vs 6h), while it significantly declined for unit leaders (24h to 14h), senior and junior hospital doctors (28h to 20h). Among hospital doctors the largest reduction in patient time was among laboratory doctors (unit leaders 24h to 11h; seniors/juniors 29h to 16h), followed by doctors in internal medicine (unit leaders 25h to 17h, seniors/juniors 28h to 20h) and surgeons (unit leaders 27h to 22h, seniors/juniors 32h to 25h). A not significant decline was found among unit leaders (15h vto11h) and seniors/juniors (19h to 16 h) in psychiatry.

Conclusions

Differences in clinical productivity, professional autonomy and type of care may account for the observed decline in doctor care hours.

Key messages

- From 1994 to 2014, weekly working hours were stable for most doctors in Norway
- However, there is a considerable decline in the number of hours spent in direct patient care

A cost/benefit analysis of self-care initiatives in the European Union – who benefits, who gains?

Herwig Ostermann

H Ostermann[1,2], *A Renner*[1], *P Schneider*[1], *J Bobek*[1], *S Vogler*[1]
[1]Department of Health Economics, Austrian Health Institute, Vienna, Austria
[2]Department of Public Health, University for Health Sciences, Medical Informatics and Technology, Hall/Tyrol, Austria
Contact: herwig.ostermann@goeg.at

Background

Recently, European health systems are compelled to implement cost containment measures while simultaneously maintaining or even enhancing high quality health care. To achieve this, initiatives promoting patient involvement in case of minor ailments (‘‘self-care’’) are considered promising.

Methods

A cost/benefit analysis (CBA) was conducted covering modified access to prescription drugs, extended range of authorized prescribers and internet/telephone information portals. Subject to limited data availability costs and benefits were calculated for minor ailments schemes (MAS), non-medical prescribing (NMP) and NHS Choices in England with a standard costing approach to facilitate transferability of results. The CBA covered four perspectives: patient, provider (physician, pharmacist), system and society.

Results

In all initiatives patients benefit from time savings due to avoided physician visits, compensating for occasionally higher out-of-pocket payments for drugs. Physicians are confronted with a negative benefit due to loss of income, which corresponds to a positive effect on a system's level. If the initiatives' costs do not include extra remuneration for pharmacists, increased time for consultations leads to a negative benefit for pharmacists.

The required participation rates (in terms of patients with minor ailments refraining from a GP consultation due to an initiative) for a positive societal net benefit are 27.5% for MAS and 4.4% for NHS Choices. For NMP, costs at providers' (i.e. pharmacists') level are too high for a positive net benefit.

Conclusions

Self-care initiatives based on modified access schemes or information portals may lead to a societal benefit, whereas the mere extension of prescribers does not. As actual cost components of the initiatives (e.g. provider remuneration) and drug reimbursement regimes (e.g. prescriptions fees) affect potential savings and costs, these have to be considered when implementing a policy.

Key messages

- Modified access schemes to prescription drugs and information portals were identified as feasible self care initiatives in order to achieve a net societal benefit
- Economic impacts on stakeholders (patients, providers, system) are affected by actual cost components of the initiatives and drug reimbursement regimes, which are relevant for policy implementation

Effectiveness of pay-for-performance in primary care: the Portuguese experience

Julian Perelman

J Perelman[1], *A Lourenço*[2]
[1]Escola Nacional de Saúde Pública, Universidade Nova de Lisboa, Lisbon, Portugal
[2]Centro Hospitalar e Universitário de Coimbra, Coimbra, Portugal
Contact: jperelman@ensp.unl.pt

Background

The benefits of pay-for-performance (P4P) in primary care (PC) are not consensual. We evaluated the impact of the P4P Portuguese model on quality of care and expenditures.

Methods

The data included the outcomes for the 12 performance indicators at 966 public PC units followed between 2009 and 2013 ($n = 57{,}960$). The indicators referred to care for children and newborns, management of diabetes and hypertension, and cancer screening (quality); and to drugs/exams expenditures. We compared the evolution of indicators between PC units rewarded by individual incentives to physicians (treatment group), units rewarded by team incentives only (control group I), and units without P4P payment (control group II). Generalized estimating equations were used to estimate differences-in-differences models, using the first year of P4P as proxy of the pre-P4P situation.

Results

The PC units in the treatment group performed significantly better for all indicators in the first year. Though, the rate of quality improvement was significantly greater at control group I for seven out of the ten quality indicators, while no significant differences were observed in the remaining three. Also, the rate of improvement was significantly greater at control group II for three quality indicators, while no significant differences were observed in five of them. In contrast, the reduction of health expenditures was always significantly more pronounced in the treatment group.

Conclusions

The P4P with individual incentives was associated to an initial quality advantage, which however reduced across time; in contrast, the gap accentuated in regard to their initially lower expenditures. The short-term quality gains confirm previous evidence on the P4P effectiveness. On the one hand, ceiling effects may have limited the improvement at fully incentivized units. On the other hand, the public display of performance may have enhanced the quality at units excluded from the P4P.

Key messages

- The Portuguese experience shows that the pay-for-performance in primary care is effective in improving the quality of care and reducing expenditures
- The improvements related to the pay-for-performance were however limited to the short term, confirming previous evidence

Evaluation of the Quality of referral in Portugal: a three years analysis

Marilia Bettencourt-Silva

M Bettencourt-Silva[1], *R Cortes*[1,2], *L Velez Lapão*[1,3]
[1]Instituto de Higiene e Medicina Tropical, Universidade Nova de Lisboa, Portugal

[2]Pensamento Inesperado, Lisboa, Portugal
[3]Global Health and Tropical Medicine, Lisboa, Portugal
Contact: mariliabettencourtsilva@gmail.com

Portuguese population is one of the oldest in Europe, leading to a significant burden of chronic problems. The chronic diseases are first diagnosed in primary health care (PHC) originating a growing of referral processes to hospitals. The requests for specialist consultations have been increasing 10% a year from 2012 to 2014. From the referral processes between PHC and Hospitals arise substantial inefficiencies, such as clinical information gaps between the two levels of care, over and under referral, exams and medication duplication. The referral process needs to be fully understood so that one can identify potential areas for improvement. This study aims at contributing to understand the quality of the referral process in the integrated care, between PHC setting and Hospital.

The data source used was official data from the Ministry of Health. The inclusion criteria were the following: data from 2012 until 2014; data on PHC settings and about the related hospital. The first step was a descriptive statistics analysis to characterize the types of requests and institutions. In a second step, trough statistical inference we tested some hypothesis. To test the behavior of the distribution ANOVA was used SPSS.

During the three years of analysis, 4427 specialist appointments were scheduled, 4812 were refused and 9895 returned (back to PHC). A significant yearly change was observed. There was difference between specialty groups (p value $< 0{,}001$), refused requests and faults (p value $< 0{,}001$), returned requests (p value $< 0{,}001$), and among the type of PHC. USF, a family practice based model, has less referrals and less returned than the UCSP, individual based model, from the origin of the request (p value $< 0{,}001$). The type of institution requested showed significant differences to scheduled consultations (p value $< 0{,}001$), refused requests and faults (p value $< 0{,}001$), returned requests (p value $< 0{,}001$) and type of PHC center (p value $< 0{,}001$).

Indeed, there were more returned consultations and refused altogether than scheduled ones. This may point to some inequality between different PHC organizational models and a lack of quality in referral process with serious impact to patients.

Key messages

- Differences in the types of PHC organisational models in referrals processes in articulated care
- We must improve referral processes quality in health system

Strengthening Primary Care: The Introduction of Family Medicine in Turkey 2005–2013

Thomas Hone

T Hone[1], I Gurol-Urganci[2], C Millett[1], B Başara[3], R Akdağ[3], R Atun[4]
[1]Department of Primary Care and Public Health, School of Public Health, Imperial College London, UK
[2]London School of Hygiene and Tropical Medicine, London, UK
[3]Ministry of Health, Ankara, Turkey,
[4]Harvard School of Public Health, Boston, MA, USA
Contact: thomas.hone12@imperial.ac.uk

Background

Strengthening primary health care (PHC) is deemed a priority for efficient and responsive health systems, but further empirical evidence is needed. Family medicine (FM) was expanded across all 81 provinces of Turkey from 2005 to 2010, and PHC strengthened with direct contracting, performance-based pay, and improved training and guidelines. The stepwise introduction of FM is a natural setting to assess the effect of PHC strengthening on service utilisation and user satisfaction.

Methods

The effect on utilization of FM introduction was assessed with longitudinal, province-level data for 12 years and multivariate regression models adjusting for health services, demographics, socioeconomics and yearly trends. User satisfaction with health services was explored with data from annual Life Satisfaction Surveys. Trends in preferred first service (primary vs. secondary, public vs. private), reason for choice and health services issues, were stratified by patient age, provider, and location.

Results

From 2002 to 2013, mean PHC consultations grew from 1.75 to 2.83 per person per year. FM introduction was associated with an increase of 0.37 PHC consultations per person in multivariate models ($p < 0.001$). The ratio of primary-to-secondary consultations fell by 1.1% ($p < 0.01$) yearly, but FM introduction was associated with a 12% shift to primary care ($p < 0.001$). PHC as preferred service increased by 9.5% over seven years with the reasons of proximity and service satisfaction growing by 14.9% and 11.8% respectively. Reporting of bad facility hygiene, issue getting an appointment, poor physician conduct and high costs of care all fell ($p < 0.001$) in PHC settings, but were higher among urban, low-income and working-age populations.

Conclusion

Expanding PHC with a new comprehensive service appears to have increased utilisation and satisfaction in Turkey. Policymakers considering PHC strengthening may expect improvements to health system effectiveness and responsiveness.

Key messages

- Introduction of a new family medicine service in Turkey was associated with increased utilisation of primary healthcare and a shift away from secondary care services
- Throughout a period of primary healthcare strengthening in Turkey, citizens reported increased accessibility, satisfaction and service quality in primary care

Evidence-based nursing practices in primary care services for migrants: a systematic review

Marie Dauvrin

M Dauvrin[1], B Vissandjée[2]
[1]Institute of Health and Society, Université catholique de Louvain, Brussels, Belgium
[2]Faculty of nursing, Université de Montréal, Montreal QC, Canada
Contact: marie.dauvrin@uclouvain.be

Experiencing migration differently affects the health of individuals according to additional factors of vulnerability as gender or legal status. In primary care services, nurses are key actors in caring for such vulnerable migrants but evidence-based practices are still lacking. This literature review aims at identifying evidence-based nursing practices in primary care services for vulnerable migrant populations.

Methods. We identified nursing interventions caring for migrants in primary care services in the literature published between 2000 and 2015. Vulnerability of the migrants was measured with the PROGRESS framework. Nursing components of the interventions were analyzed according to the 6 dimensions of the model of Advance Practice Nursing (Hamric et al. 2014). Quality appraisal included 8 criteria, each study received a score of quality.

Results. We reviewed 104 papers and found 30 studies that met the inclusion criteria. Being vulnerable as a migrant was mostly defined as not being able to communicate with the health professionals ($n = 20$). Most interventions targeted type 2 diabetes ($n = 8$) and cardiovascular diseases ($n = 8$). Attention to the specific needs of the migrants was achieved through cultural and linguistic adaptations but only one intervention included the intersectionality of risk factors (e.g. paying attention to migration, gender and socioeconomic status). Expert guidance/coaching and consultation were the two advanced practice nursing components reported in all studies. Collaboration, leadership, research and ethical decision-making skills were not reported in the retrieved studies. Overall, nursing interventions appear to be effective in improving health outcomes for migrants.

Conclusion

This literature review provides a relevant basis for researches and professional development for nurses. Further studies should support the development of collaboration, leadership, research and ethical decision-making skills of nurses in primary care services.

Key messages

- Nursing interventions appear to be effective in improving health outcomes for migrants
- Further studies should support the development of collaboration, leadership, research and ethical decision-making skills of nurses in primary care services

What are the priorities of our citizens for the improvement of Primary health care?

Bojana Matejic

B Matejić[1], T Bajić[2], J Tanasić[3], G Milovanović[4]
[1]School of Medicine University of Belgrade, Serbia
[2]Freelance consultant, Serbia
[3]Standing Conference of Towns and Municipalities of Serbia, Serbia
[4]DiploFoundation, Serbia
Contact: bmatejic@med.bg.ac.rs

Background

Primary health care sector in Serbia is under the jurisdiction of local level. The aim of this study is to explore the citizens' priorities for Primary health care improvement.

Methods

This is a cross-sectional study conducted in six randomly selected local communities. The quota sample was applied for each municipality, based on the latest available census data on the structure of the population by age and sex (N = 1500). The research instrument was questionnaire, consisting of 32 variables. For the purpose of this paper, we have analyzed open-ended question addressing attitudes and suggestions toward the possibilities of improvement. The respondent‘s quotes were transcribed and thematically analyzed and cross-checked by two independent researchers, according to the good practice for qualitative analysis.

Results

The average satisfaction score on Primary health care was 3.22 (SD = 0.816). Only 15 % of citizens are interested to assess quality and performance indicators of their healthcare institutions. More than half of our respondents (55,6%) had answered the open-ended question and they were older, higher educated and more frequently using the primary health care services ($p < 0.001$) than the rest of the sample. The three themes emerged during the qualitative analysis and addressed three priority domains for improvement:

1. Access and organization of services
2. The need for better exercise of the patient‘s rights, with the emphasis on the right of second opinion
3. Development of better relationship and communication of health care workers with patients

Conclusions

Our results highlighted the modest level of satisfaction with Primary health care and importance of stronger engagement of citizens in the various areas of improving health care at the local level. The respondents emphasized work on improvement of organizational and administrative procedures, work on better execution on patient rights and improvement of interpersonal aspects of care.

Key message

- Citizens can change priorities driving healthcare improvement at the local community level and more likely to feel good about services if they are active partners in this process

Project for community actions and health promotion at primary healthcare centres

Alba Tarrés

A Tarrés[2], P Batlle[3], R Tarrés[2], A Morales[3], A Martí[2], P Monreal[1]
[1]Research team on Aging, Culture and Health (ECiS), Department of Psychology, University of Girona, Spain
[2]Albera Salut, Peralada, Spain
[3]Dipsalut, Public Health Agency within the regional government of the Diputació de Girona, Spain
Contact: atarres@alberasalut.cat

Background

This work involves three institutions from different fields: academia (ECiS), public health (Dipsalut) and healthcare (Albera Salut, the institution which provides primary care services in the area of Peralada). We understand health promotion as the service for an individual/community which implements programmes and actions directed to give the necessary tools in order to understand and manage life and make sense of it, while strengthening skills for life and the competences of individuals to have greater control over their health and the factors influencing it; all this from a salutogenic perspective, which focuses on health, not disease. From this view, we have designed and implemented a health promotion programme together with those benefiting from it, who will decide on it and then take action. It's based on two strategic lines: 1. with the community: motivating the community into becoming responsible for their own health and carrying out actions that favour health promotion. 2. at the health centre: Assist the professionals from Albera Salut with their work from the health promotion view. Working from this perspective allows taking into account three of the five recommendations by the Ottawa Charter (OMS, 1986): developing people's skills for life, reorienting the service (reformulating primary care towards the community) and fostering community actions.

Methods

Participatory action research (PAR) is used to promote a reflexive process about the practice involving the participation of all the agents in order to reformulate it towards a specific goal (health promotion) and being able to improve it.

Results

We have been able to create and motivate a mixed group formed of different agents within the community (pharmacists, local authorities and community leaders), professionals from Albera Salut and two associations in the area. Work has been done while enabling coordination and connection with different agents within the community (health, social services) in order to promote the creation of community actions in an organised manner. This work also allows independent action by the community while fostering their empowerment.

Conclusions

We found that the above described model of health promotion, using participatory action research methods, gives the community the ability to gain more control over their health and the factors influencing it.

Key messages

- Community's voice: using participatory methodologies applied to community health and health promotion
- Community empowerment and innovative health assistance from primary care services in a rural area

4.Q. Round table: Lost in translation - pathogens, antimicrobial resistance, globalisation and politics

Organised by: EUPHA Section Infectious disease control
Contact: anja.schreijer@rivm.nl;valentina.digregori2@unibo.it

Chairs: Anja Schreijer, Valentina di Gregori,

Presentation by Ilaria Capua, Member of Parliament, Italy
Our globalised environment supports the unprecedented spread of pathogens. Novel threats include emerging pathogens, some of which are resistant to antibiotics or antivirals due to the introduction of pharmaceutical products in all commercial environments.

Prompt identification for the management of these outbreaks is essential. Initiatives to support rapid sharing of diagnostics will enable the scientific community to advance its understanding more efficiently and tackle the gap between new pathogens and new drugs availability. The success of these efforts lies within the scientific community and is dependent on the willingness of scientists to contribute with tools and data.

Another essential issue the scientific community must address is advocacy and communication with stakeholders and engagement of the general public to raise awareness on global threats such as antimicrobial resistance.

Advocacy and communication among scientists and politicians are perhaps the most critical focus in the communication chain if operational change is to be achieved. Especially in the topic of AMR, the list of stakeholders is long and affects both human and animal health but also food safety and the environment. Many economic interests need to be taken into account in a choice for improving rather than harm consumers. Politicians and scientists do not speak the same language and this brings a misalignment of priorities in the EU agenda. Nowadays, politicians and decision makers, from the White House parties to the EU Commission, are aware of public and media sensitivity on this topic and pressure on new policies and intervention is expected. Laws and political decisions can have a great influence on the further spread of antimicrobial resistance, preferably applied and monitored strictly in all countries by homogeneous policies. It would be beneficial for the scientific community to focus on systematic communication efforts with the political environment rather than building opposition and arousals. Doing so, would bring added value and would enable the medical research community to improve their efforts in public health interventions.

Round table with
Ricardo Baptista Leite, Member of Parliament, Portugal (tbc)
Martin McKee, EUPHA President
Luca Carra, Italy
Aura Timen, President EUPHA Section Infectious diseases control
Karl Ekdahl, ECDC

4.R. Lunch Symposium: Health Policies and Practices of Health Promoting School Program in Asian Countries

Organised by: Health Promotion Administration, Ministry of Health and Welfare, Taiwan

Chair: Hsueh-Yun Chi

Background of the problem
WHO identified six essential structures and guidelines for Health Promoting School (HPS) in 1996. The schools for Health in Europe Network (SHE) have focused on making school health promotion an integral part of the policy development. Asian countries promoted the health promoting school program and developed the accreditation system as well. Developing health policies and innovative practices is important to guide schools to fulfill the ideals of health promotion in schools. There have been many research articles indicating that HPS approach had a positive effect on student health and school environment. However, one of the most significant barriers to evaluate the health promoting schools is the absence of reliable, valid measurement instruments. Development of HPS accreditation approach framework is needed. In addition, principals will also have handover issues, as how to continue HPS promotion of a former principal is an important task. The symposium will share the experiences of how Asian countries have successfully carried out the HPS approach and the results.

Methods and Process
Among these presentations in this session, presenters will show how to successfully apply different promoting health strategies in HPS intervention programs, including action oriented leadership, HPS accreditation approach etc.

Lessons
Participants can give and get from these presentations and how they use the information they received will also be discussed.

National Health Promoting School Movement in Taiwan - Synergistic Partnership between Education and Health Departments
Fu-Li Chen,Taiwan

Health policies and practices among secondary schools in Taiwan and Thailand
Noy S. Kay,USA

The Role of School Principal in Health Promoting School Effectiveness in Taiwan
Shy-Yang Chiou, Taiwan

The effect of policy developing and action oriented leadership of health promoting school
Chien-Li Cheng, Taiwan

4.T. Lunch symposium: Creating a favourable ecosystem to unlock the potential of integrated personalised diabetes management in Europe

Organised by: EUPHA, ROCHE
Contact: office@eupha.org

The objective of the lunch symposium is to discuss innovative practices that have the potential to transform disease-oriented management systems into patient-oriented care, and to understand the hurdles preventing this shift and possible solutions. Panellists will provide their perspectives on barriers experienced at individual, professional and health system level that are hindering the uptake of integrated personalised diabetes management in Europe. The audience is invited to reflect on how to overcome the barriers to create functional ecosystems supporting a care model better fitted to the patients' and caregivers' needs. The panel debate will take into account the needs of both those who provide, manage health and social services, and the individuals who receive them.

4.U. Round table: The role of adult vaccination as part of Healthy Ageing

Organised by: EUPHA, Pfizer Vaccines Europe

Chairs: Walter Ricciardi, Sergio Pecorelli

Infectious diseases are common but are often preventable through vaccination. In contrast to infant vaccination, the adult population is less familiar or focused on vaccination as a disease prevention strategy. However the risk of infection remains a significant burden with considerable morbidity and mortality in the adult population. Pneumonia is one infectious disease in point where the risk remains.

As Europe's population is ageing rapidly, the number of older aged dependents in the EU receiving formal care will more than double during the next 50 years. The burden of disease on healthcare services will therefore only increase with an ageing European population. Significantly, not all stakeholders including policy makers and the general public have realised the substantial impact that adult immunisation programs can have to prevent disease and to reduce health care costs.

The session will explore the challenge that an ageing EU population presents for the control of vaccine preventable disease as well as the need for all governments to do more to prioritise adult vaccination programmes across Europe. The round table session will highlight who is at risk and why community awareness is so low. The on-going efforts to raise awareness in Italy via the multi-stakeholder national Happy Ageing Alliance will be showcased.

Presenters:
Who is at risk, why community awareness is so low, what are the lessons from flu awareness
Lale Ozisik
A perspective on adult immunisation and healthy ageing from the International Federation on Ageing
Jane Barratt, Canada
The Italian Perspective with Happy Ageing
Michele Conversano and Anna Odone, Italy

PARALLEL SESSION 5

Friday 16 October 2015 14:50–15:50

5.A. Pitch presentations: Public Health issues around the world

The Discourses on Induced Abortion in Ugandan Daily Newspapers

Sara Fritzell

S Larsson[1], M Eliasson[1], M Klingberg Allvin[1,2], E Faxelid[1], L Atuyambe[3], S Fritzell[1]
[1]Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden
[2]School of Health and Social Sciences, Dalarna University, Falun, Sweden
[3]Department of Community Health and Behavioural Sciences, Makerere University School of Public Health, Kampala, Uganda
Contact: sara.fritzell@ki.se

With a maternal mortality ratio of 310/100,000 live births, or almost 5000 women dying annually of pregnancy-related causes Uganda's reproductive health indicators are poor.Ugandan law prohibits induced abortion under all circumstances except where there is a risk for the woman's life. To better understand what values surround the subject of induced abortion and abortion legislation, it is vital to study existing societal discourses. As journalistic routines and norms create hegemonic discourse around political issues, mainstream news media hold a key position.

The aim is to understand societal views on induced abortion in Uganda, through analyzing the discourses on abortion as expressed in the country's two main daily English-speaking newspapers. How is the problem of abortion represented, what assumptions underlie these representations and what consequences does this have? Data was collected through a systematic online search of articles from New Vision and Daily Monitor during 2007 −2012. The conceptual content of 59 articles was studied by critical discourse analysis, in which discourses are defined as diverse representations of social life. This study displays the sensitivity of the topic of abortion within the Ugandan society, manifested in the way different actors and their activities are portrayed and presented, including how stakeholders choose to convey their messages through the media and showcased by the nonexistence of certain statements and actors. Two main discourses are found; one religious put forward by representatives of the Catholic movement, emphasizing the sanctity of life of the foetus. Another focusing human rights aspects; the right to life of the unborn child and women's rights to health respectively, here also legal and medical discourses are drawn upon. The articulation of the discourses has bearing on who is portrayed as to blame for and who is the victim of abortions, thus having implications for the stigma surrounding abortion.

Key messages

- Two main discourses, a religious discourse and a human rights discourse, together with medical and legal sub discourses frame the subject of abortion in Uganda
- To decrease the number of maternal deaths, this study points to the need for a more inclusive and varied debate that problematizes the current situation, especially from a gender perspective

Preterm birth rates in source countries and after migration to Norway

Ingvil Sørbye

IK Sørbye[1], AK Daltveit[2], S Vangen[1]
[1]Norwegian National Advisory Unit on Women's Health, Oslo University Hospital, Norway
[2]Department of Global Public Health and Primary Care, University of Bergen, Norway.
Contact: isorbye@ous-hf.no

Background

Preterm birth (PTB) rates vary by maternal country of origin; however, whether differences are physiological or pathological remains contested. We aimed to compare PTB rates in Norway by maternal country of birth to estimates for PTB in the corresponding source countries. We furthermore assessed the impact of migrants' length of residence in Norway on rates of PTB.

Methods

We linked birth and immigration data for 55 099 liveborns to women born in Somalia, Pakistan, Iraq, Vietnam, Thailand, the Philippines, Sri Lanka and Turkey from 1990–2010. We calculated the PTB rate with 95% confidence intervals by country group and by length of residence. We used the most recent World Health Organization PTB estimates for source countries for the year 2010 as comparison. The relation between the PTB rates was estimated by Pearson's correlation coefficient.

Results

A total of 4 092 preterm births occurred. The PTB rates in source countries were higher in all country groups when compared to rates among migrants. Seven out of eight source countries had PTB rates >10%, whilst among migrants, all groups had PTB rates of <9%. There was no correlation between estimates for PTB in source countries and in Norway ($R2 = 0.255$, $p = 0.202$).We found a positive trend between PTB rates and length of residence in six out of eight migrant groups. The association was limited to medically indicated births and was linked to maternal diabetes, hypertension and fetal growth restriction.

Conclusions

The gap in preterm birth rates between migrants and estimates for their source countries is likely to reflect selection to migration, whereas differences across migrants' length of residence in Norway are likely to be due to a mix of physiological and pathological factors. Subgroups with persisting or increased risk of preterm birth after migration should be targeted for early detection and optimal obstetric management.

Key messages

- Preterm birth rates in migrants'country of origin do not predict rates after migration
- Increasing preterm rates with longer duration of residence calls for preventive efforts among high-risk migrant groups

Duration of residence and infectious diseases among refugee children in Denmark: a cohort study

Marie Norredam

Marie Norredam[1,2], Eleni Vradi[3], Jørgen Holm Petersen[3], Alexandra Kruse[4]
[1]Danish Research Centre for Migration, Ethnicity, and Health; Section for Health Services Research; Department of Public Health; University of Copenhagen; Denmark
[2]Section of Immigrant Medicine, Department of Infectious Disease, University Hospital Copenhagen, Hvidovre, Denmark
[3]Section for Biostatistics, Department of Public Health, University of Copenhagen, Denmark.
[4]Section of Pediatrics, University Hospital Copenhagen, Hvidovre, Denmark
Contact: mano@sund.ku.dk

Background

Knowledge on infectious disease (ID) occurrence among refugee children in Western immigration countries is largely non-existing. Especially register-based studies on nation-wide data are warranted.

Objectives: We investigated ID occurrence and its relation to duration of residence among refugee children in Denmark.

Methods

A historic prospective cohort study. All refugee children (n = 25,688), who obtained residence permission in Denmark between 1 January1993 and 31 December 2010, were included. A Danish-born control group was identified through a 6:1 matching on age and sex. Personal identification numbers were linked to the Danish National Patient Register identifying all children with selected ID during follow-up (01.01.1993–31.12.2011).

Results

Refugee children had significantly higher RRs of all ID outcomes compared to Danish-born children over the entire observation, i.e. HIV/AIDS (RR:10.59; 95%CI: 3.84;29.14) and viral hepatitis (RR:10.81;95%CI: 7.48;15.63). RRs varied with migrant.

Background

and region of origin not least leaving refugee children form SubSahara with adverse outcomes. Second, HRs for all ID outcomes decreased over time among refugee children in total compared to Danish-born children, apart from HIV/AIDS and intestinal infections were an increase was observed.

Conclusions

Diagnosis of ID within the first year after arrival appeared significant especially for asylum seekers. Public health professionals should be aware of screening policies and practices related to differing refugees groups may affect ID diagnosis.

Key messages

- Refugee children (especially quota refugees) had significantly higher RRs of all ID outcomes compared to Danish-born children over the entire observation
- Albeit a decrease were observed over time HR still remained high for among refugee children after the entire follow-up

Addressing the Health Care Worker shortage in Tanzania through a Task Sharing Policy

Vamsi Vasireddy

V Vasireddy, E Mtiro
Centers for Disease Control and Prevention (CDC), Dar es Salaam, Tanzania
Contact: yjz9@cdc.gov

Background and problem

Tanzania's has 7.1 clinicians per 10,000 people compared to the World Health Organization's (WHO) recommendation of 23. This extreme shortage of Health Care Workers (HCW) impacts the availability and quality of health service delivery, the attainment of universal health coverage, and the achievement of desirable health outcomes. The Task Sharing Policy Guidelines (TSPG) for HCWs in Tanzania aim to ensure that the task sharing initiative, as advocated by the WHO, is formally adopted as a way of strengthening and expanding the health workforce in the country to rapidly increase access to health services.

Policy description

Task Sharing involves the rational redistribution of tasks among HCWs at various levels within the health system. Specific tasks related to health care delivery are shared, where appropriate, from highly qualified health workers to health workers with fewer qualifications in that particular area or field in order to make more efficient use of the available workforce. For example: nurses may prescribe Antiretroviral Treatment (ART) for HIV/AIDS patients when a physician is unavailable. The author will describe additional examples of tasks that are shared between cadres.

Lessons

Developing the TSPG involves commitment from the Ministry of Health and Social Welfare (MOHSW), but-in from key stakeholders such as the clinical professions, and donor support. The presentation will describe the process by which Tanzania MOHSW developed the TSPG, which may serve as an example to other countries pursuing task sharing.

Main message: Task Sharing is an evidence-based method to address the shortage of HCWs and strengthen health services delivery in low income countries that suffer from a severe workforce shortage. Task sharing when implemented in conjunction with strategies to produce HCWs can ensure uninterrupted delivery and scale-up of health services until adequate numbers of HCWs are produced and employed by the government.

Key messages

- Task Sharing is an effective and evidence-based method to ensure health services delivery in sub-Saharan Africa where healthcare workers are in short supply
- Healthcare workforce shortage in sub-Saharan Africa needs long-term investments in areas of pre-service training and stop gap methods such as Task Sharing to support health services delivery

Prevalence and determinants of stunting in Berd region in Armenia-A conflict-ridden area in Caucasus

Arin A. Balalian

A Balalian[1], S Simonyan[2], H Hekimian[3]
[1]Mission East Armenia, GFATM Projects Implementations Unit, Yerevan, Armenia
[2]Healthcare Projects department, Fund for Armenian Relief of America, Yerevan Armenia
[3]Institute of Human Nutrition, Columbia University, New York, USA
Contact: arinbalalian@gmail.com

Background

Despite global efforts, stunting is still a public health problem in several developing countries in the world. The prevalence of stunting among the children 0–5 years old in Armenia, has increased to from 17% in 2000 to 18% in 2005 and then to19% in 2010. A program was designed to reduce the prevalence of stunting among preschool children in Berd - a poor region in Armenia near the north east border which has experienced intermittent military tensions for over 20 years. To understand the effectiveness of the program, a baseline study was conducted.

Methods

The study design was a cross sectional quantitative assessment of anemia, intestinal parasitic infections, and stunting among children 6 months - 6 years old in the target communities (n = 604). The research team conducted anthropometric and hemoglobin measurements, as well as stool analysis for presence of intestinal parasites among the study population. Children's caregivers participated in a survey about their children's eating habits.

Results

The prevalence of stunting was higher among the children from 6 months to 24 months old both in rural [12.1%] and urban [14.3 %(95%CI 5.5-25)] communities compared to 25–72 months old children in rural areas [7.1%] and in urban areas [9.9% (95% CI 4.4-14.8)]. The children who had consumed at least 4 food groups during the previous day (Minimum dietary diversity) of the investigation had significantly lower odds of being stunted ($OR = 0.29$, $p < 0.02$). Also children who had suffered from prolonged diarrhea had significantly higher odds of being stunted ($OR = 3.00$ $p < 0.05$). The prevalence of anemia and intestinal parasites in the urban and rural communities were calculated. However, no statistically significant associations were found between stunting and presence of intestinal parasites and anemia.

Conclusions

The study identified several key determinants associated with stunting in this vulnerable region. The protective role of consumption of diverse food groups on stunting highlights the importance of making balanced nutrition accessible to children through parent education and young child feeding programs. These findings led to the design of community training initiatives regarding children's health and hygiene that can reduce the prevalence of stunting and ensure the appropriate nutrition for children with episodes of diarrhea.

Key messages

- Diversity of food plays a preventive role in development of stunting
- Community public health training and young child feeding programs should be considered as possible interventions for the program planners

Prevalence of polypharmacy in patients of the emergency hospital in East Kazakhstan

Andrej Grjibovski

A Mussina[1], L Zhamalieyva[1], G Smagulova[1], AM Grjibovski[2,3,4]
[1]West Kazakhstan Marat Ospanov State Medical University, Aktobe, Kazakhstan
[2]Norwegian Institute of Public Health, Oslo, Norway
3Northern State Medical University, Arkhangelsk, Russia
[4]International Kazakh-Turkish University, Turkestan, Kazakhstan
Contact: andrej.grjibovski@gmail.com

Background

Polypharmacy i.e. administration of more medications than are clinically indicated is common among the elderly in many countries and is associated with negative health outcomes. European studies have reported the prevalence of polypharmacy ranging from 30.4% and 84.5%, but the evidence from Central Asian countries of the European WHO region is almost non-existent. The aim of this pilot study is to assess the prevalence of polypharmacy in a typical emergency hospital in a Kazakhstani urban setting.

Methods

A cross-sectional hospital-based study. Data were obtained from medical records of 358 randomly selected patients aged 16 years or more hospitalized to the emergency hospital in Aktobe (regional center of West Kazakhstan, population 385 thousand). Polypharmacy was defined as administration of more than 5 medicines. Potentially inappropriate medicines (PIM) were identified using the Beers criteria. The prevalence of polypharmacy is presented with 95% confidence intervals (CI) by gender and age and compared using Pearson's chi-squared tests.

Results

The age ranged from 16 to 93 years. The number of prescribed medicines varied from 1 to 21 with the mean of 8.1 (95% CI: 7.8-8.5). The prevalence of polypharmacy was 78.4% (95% CI: 72.0-84.6) among women and 79.9% (95% CI: 73.1-85.3) among men ($p = 0.723$). Polypharmacy was observed in 76.3% of patients below 65 years of age (95% CI: 71.1-80.8) vs. 92.1% (95% CI: 82.7-96.6) among those who were 65 years and older ($p = 0.005$). By department, the prevalence of polypharmacy ranged from 34.3% in thoracic surgery department to 100% in cardiology department and intensive care unit. The most common PIM administered to elderly patients were ketorolac (29.8%), clopidogrel (17.5%) and diphenhydramine (10.5%).

Conclusions

We observed alarmingly high prevalence of polypharmacy particularly among elderly patients in the emergency hospital in Aktobe, Kazakhstan. The reasons behind our findings will be discussed. A larger study involving several hospitals from different parts of the country is needed to assess the nationwide prevalence of polypharmacy and its correlates in Kazakhstan.

Key message

- We observed alarmingly high prevalence of polypharmacy particularly among elderly patients in the emergency hospital in Aktobe, Kazakhstan

Bedouin Minority Health Promotion and Education Practices in Israel

Ziva Stahl

Z Stahl[1,2], F Alsana[1], M Gdalevich[1,2]
[1]Ministry of Health, Southern District, Israel.
[2]Division of Community Health, Ben-Gurion University of the Negev, Israel
Contact: ziva.stahl@bsh.health.gov.il

The Bedouin minority population in Southern Israel (Negev) consists of 223,000 people (20% of the district population). About 60% live in permanent urban-style towns and the rest in traditional villages and rural settings with tents or temporary buildings not connected to central infrastructures for the provision of many basic services (electricity, water, paved roads). Most Negev Bedouins live in large families with many children, are of a low social economic status and lower levels of education. The Bedouin population is in the last stages of transition to urban lifestyle, moving from the semi-nomadic lifestyle life to permanent settlements. In the Negev Bedouin population there is high prevalence of health related problems: infectious diseases (e.g. Brucellosis) and non-communicable disease: for example smoking, obesity, diabetes; malnutrition. These place the need for tailored Practices of Health Promotion and Education that emphasis cultural and language accessibility. The Southern District Health Office, Ministry of Health (SDHO) implements health promotion and education programs where the need for is presented. The programs include partners and stakeholders: such as the relevant parties in the Bedouin community in order to develop, implement and evaluate the program. They include collaborations with governmental and health organizations, community-based education programs; Bedouin schools Health education programs. For evaluation of the Health Promotion activity The SDHO constantly monitors the population health, continuing surveillance of mortality and morbidity rates, pre & post evaluation of knowledge, attitudes and health behavior. The aim of this talk is to present some of the implemented health promotion practices learnt from the Bedouin Minority Health Promotion and Education Programs and highlight the lessons learnt.

Key message

- Tailored cultural and language accessibility is essential for successes of Health Promotion and Education Practices for the unique Bedouin Minority in Israel

5.B. Pitch presentations: PH issues and actions in Europe

Urban air pollution and cerebrovascular diseases in Novi Sad

Natasa Dragic

N Dragic[1,2], S Bijelovic[1,2], E Zivadinovic[2], M Jovanovic[2], M Jevtic[1,2]
[1]University of Novi Sad, School of Medicine, Novi Sad, Serbia
[2]Institute of Public Health of Vojvodina, Novi Sad, Serbia
Contact: nata.dragic@gmail.com

Background

Several studies in Europe and Asia showed that cerebrovascular admissions were significantly associated with short-term effects of nitrogen dioxide (NO2) and acute exposure to sulphur dioxide (SO2). This research designed to estimate the association between gaseous air pollutants and hospital admissions for cerebrovascular diseases in Novi Sad.

Methods

From January 01st, 2010 to December 31st 2011 in the city of Novi Sad, Serbia daily concentrations of NO2 and SO2 were regressed against daily hospital admissions for cerebrovascular diseases (ICD10:I60-I69) by the Poisson regression models adjusting for temperature, humidity and temporal trends. All association were examined with the lag 0 day. The results were expressed according to percentage increase in Relative

Risk (RR), with the 95% Confidence Interval (CI), related to number of patients admitted to hospital with the variation of 10 μg/m3 in the concentration of each pollutant. In all statistical analysis was used Statistical Package for Social Sciences for Windows (SPSS / version −17.0) software.

Results

For the whole period there was 1555 daily hospital admissions for cerebrovascular diseases for persons of all ages. The daily mean level of NO2 and SO2 was 24.99 ± 15.17μg/m3 and 21.70 ± 4.18μg/m3, respectively. Single-pollutant models showed NO2 was significantly positive associated with increasing hospital admissions for cerebrovascular diseases. A rise in NO2 levels of 10μg/m3 was associated with increment of 10% (95%CI 1.007-1.013) in the expected daily number of cerebrovascular admissions. The concentration of SO2 is significantly associated with decreasing of daily number of hospital admissions.

Conclusion

Hospital admissions for cerebrovascular diseases among persons of all ages are associated with current levels of gaseous air pollutants in Novi Sad.

Key messages

- Gaseous air pollutants even at low concentrations are associated with hospital admissions for cerebrovascular disease
- Because the number of people exposed to low-level of urban air pollution is very high, there is a need for monitoring the effects of air pollution on health on a continuous basis

Health co-benefits and household preferences for reducing greenhouse gas emission in Europe

Frederic Neuendorf

F Neuendorf[1], *L Valérie*[1], *R Sauerborn*[1], *G Dubois*[2]
[1]Institute of Public Health, University of Heidelberg, Heidelberg, Germany
[2]TEC-conseil, Marseille, France
Contact: Frederic.Neuendorf@uni-heidelberg.de

Background

The European Union has set up an ambitious target to reduce the total greenhouse gas (GHG) emissions by about 80% by 2050. With the residential and service sector currently responsible for one fifth of total emissions, more policies are needed to decarbonize private household activities.

The aim of the study is first to identify household preferences in reducing their GHG emissions based on informed considerations regarding costs, GHG emissions and health, and second to shape adapted policies supporting households in their consumption choices.

Methods

Extending on a pilot study, the project takes place in four mid-size European towns in France, Germany, Sweden and Norway. A representative household sample is selected using city registers. Two sets of structured interviews applied during home visits are used to 1) assess the current household footprint of direct and indirect GHG emissions and 2) simulate potential reductions through GHG-saving measures applied to housing, transport, food, and consumption. Policy makers from local to national levels are consulted from the beginning to create ownership of possible policy options based on the research results.

Results

Preliminary results demonstrated the feasibility of the approach, and showed diversity in the hierarchy of choices and in the rationale and values behind them considering cost and GHG emissions. Further results are expected to quantify health co-benefits associated with potential behavior change and highlight policy implications. The study compares the preferences and ranking on actions taken among the four European countries.

Conclusions

This study proposes an innovative approach to assess the preferences of households when challenged with GHG reductions, estimate the importance of health in the decision making process and quantify potential health co-benefits. In addition it will help shape realistic evidence-based policies.

Key messages

- This work sheds light on the decision making process at household level when individuals are challenged to reduce GHG emissions considering cost, GHG emissions and health
- The study's innovative approach involves policy-maker early on to shape realistic evidence-based policies

Comparing sewage-based epidemiology with survey research on drug use in the general population

Guido Van Hal

J van Wel[1], *J Kinyua*[2], *E Gracia Lor*[3], *S Salvatore*[4], *A van Nuijs*[2], *A Covaci*[2], *J Bramness*[3], *S Castiglioni*[3], *G Van Hal*[1]
[1]Department of Epidemiology and Social Medicine, University of Antwerp, Belgium
[2]Department of Pharmaceutical Sciences, University of Antwerp, Belgium
[3]Department of Environmental Health Sciences, Istituto di Ricerche Farmacologiche ''Mario Negri'' (IRCCS), Italy
[4]Norwegian Centre for Addiction Research (SERAF), University of Oslo, Norway
Contact: guido.vanhal@uantwerpen.be

Both licit and illicit drug use is prevalent in the European Union (for example, more than 70% of inhabitants (15-64 years of age) use alcohol while over 21% indicate having ever used cannabis). These estimations are based on population surveys. However, these suffer from response biases. In order to add more objective data on drug use to the existing measures, a new method has been developed; wastewater-based epidemiology (WBE). In this method, wastewater is analyzed for the presence of drugs and their metabolites. In this study, the usefulness of WBE for assessing illicit drug use in a community is evaluated by comparing wastewater data with that from a population survey.

During a 12-week period (Autumn 2014), a website was opened on which inhabitants of a selected community (a town of <30.000 inhabitants) were asked to indicate their drug use in the past week. Concomitant wastewater samples were taken from the wastewater treatment plant (WWTP) collecting from the community. This way, comparisons could be drawn between what inhabitants of the city reported themselves about their drug use and the drug concentrations present in the water. The wastewater samples were analyzed using a validated method based on solid phase extraction (SPE) and liquid chromatography coupled to tandem mass spectroscopy (LC-MS/MS).

Answers on the questionnaires (average N = 263) showed that apart from alcohol and tobacco (60.8% and 17.5% users on average per week respectively), cannabis was the most used drug each week among the persons answering the questionnaire (1.3% on average weekly) but response rates were very low. In the chemical analyses, alcohol and tobacco were used the most. Cannabis was the most consumed illicit drug detected in the community, followed by amphetamine, benzoylecgonine, MDMA and EDDP.

This research provides evidence for the usefulness of sewage-based epidemiology as addition to traditional epidemiological measures on licit and illicit drug use. It was difficult to compare wastewater with survey data on illicit drug use since response rates were low. Future research on combining the two approaches should focus on either a more general approach, e.g. national population surveys, or take place in a more focused setting, such as festivals, where a higher degree of drug use can be expected.

Key messages

- Sewage-based epidemiology is a useful addition to traditional epidemiological measures to provide information about licit and illicit drug use
- Combining survey research and sewage-based epidemiology in an ecologically valid way should be approached with strong caution as response rates on this sensitive topic are an issue

The association between disease management programs and health system responsiveness

Miriam Blümel

M Blümel[1], J Röttger[1], R Linder[2], R Busse[1]
[1]Department of Health Care Management, Berlin University of Technology, Berlin, Germany
[2]Wissenschaftliches Institut der TK für Nutzen und Effizienz im Gesundheitswesen, Hamburg, Germany
Contact: miriam.bluemel@tu-berlin.de

Background

Health system responsiveness is an important aspect of health systems. The concept of responsiveness relates to the interpersonal and contextual aspects of health care. While disease management programs (DMP) have the aim to improve the quality of health care (e.g. by improving the coordination of care), it has not been analyzed yet if these programs improve the health system responsiveness for the respective patients.

Methods

We used linked survey- and administrative claims data from 7.070 patients with coronary heart disease. Of those, 5,103 were enrolled in the respective DMP and 1,967 were not enrolled. Responsiveness was assessed in a postal survey, conducted in October 2013, with 17 items for each, GP and specialist-care. Each item had five answer categories (very good – very bad), which were dichotomized for the analyses into positive experience (very good/good) and negative experience. We used propensity score matching (PSM) to control for differences between the two groups regarding gender, age, comorbidities, utilization of health services, disease severity, and socio-economic status. We used McNemar test with Bonferroni correction to analyze differences regarding the health system responsiveness.

Results

The PSM led to a matched sample of 1.645 pairs. The matched sample is balanced regarding all included covariates. The enrolled-individuals reported slightly more often a positive experience. The main difference was found for the coordination of care, with 474 (35.3%) of 1,342 not-enrolled individuals reporting a negative experience with their specialist care compared to 382 (28.4%) of 1,342 enrolled individuals ($p < 0.01$) and almost identical results regarding their GP care.

Conclusions

The participation in a DMP is associated with a slightly better health system responsiveness, after controlling for various patient characteristics. The main effect can be found for coordination of care, which is consistent with the aim of the respective DMP.

Key messages

- Participants of the respective disease management program report slightly more often a positive health system responsiveness
- The main difference can be found for coordination of care, with participants of the disease management program reporting more positive experiences

Socio-economic and health impact of chronic diseases on families: patients opinion in Italy - 2013

Francesca Menegazzo

S Manea[1], F Menegazzo[1,2], M Fambri[2], M Bua[1], P Facchin[1]
[1]Rare Diseases Coordinating Centre - University of Padua, Veneto Region, Italy
[2]University of Padua, Italy
Contact: menegazzofrancesca@libero.it

Background

In Europe, people with chronic conditions causing disability and high burden of care are increasing. According to the social gradient theory, socio-economic (SE) disadvantage represents a risk for health. Aim of the study is to investigate whether, conversely, a chronic disease in the family increases the risk of SE disadvantage, not only for diagnosis and treatment costs, but also for the burden for the whole family, moreover affecting family health. People with Amyotrophic Lateral Sclerosis (ALS), a neurodegenerative disorder, are exemplary of chronic patients.

Methods

To analyze the SE impact perceived and the needs of people with chronic conditions, a specifically designed questionnaire has been administered, during home visits carried out in 2013, to a representative sample of patients with ALS (38) residing in the Veneto Region and to their caregivers, assessing work, SE status, caregiver's health and needs in the family.

Results

87% of caregivers are the partner. 50% of families report SE status as significantly worse due to patient's job loss/reduction (37%/63%), caregiver's job interruption/change/reduction (15%/23%/46%), heavy costs for therapy/aids (64%), paid caregiving (43%), house modifications (53%), relocation (7%). 32% of patients reveal social isolation. Caregivers expressed needs are: some free time for their children and social life (66%), a further caregiver (53%), help with housework (42%), economic aid (39%). After a year of caregiving, caregiver presents onset of diseases in 21% vs 7% of the expected and psychotropic medications use in 45% vs 25%.

Conclusions

Chronic diseases seem to drain SE and health family resources. Caregiver's health and quality of life appear particularly affected. In a growing European population with chronic conditions, it is essential to be aware of the impact of them on families and, along with patient's diagnosis, to provide a support system to reduce the risk of SE and, above all, further health disadvantage.

Key messages

- Chronic diseases represent a risk factor for socio-economic and health disadvantage for the affected family as a whole
- It is necessary to support families involved in chronic patients care, otherwise the benefits for the patient deriving from home care are obtained consuming caregiver's resources and health

Screening Policies for Health Impact Assessment: cluster analysis for easier decision making

Leonor Bacelar-Nicolau

L Bacelar-Nicolau[1,2], J Pereira Miguel[1,2], G Saporta[3]
[1]Institute of Preventive Medicine&Public Health, Faculty of Medicine, Universidade de Lisboa, Lisboa, Portugal
[2]ISAMB-Institute of Environmental Health, Faculty of Medicine, Universidade de Lisboa, Lisboa, Portugal
[3]Laboratoire CEDRIC, Conservatoire National des Arts et Métiers, Paris, France
Contact: lnicolau@medicina.ulisboa.pt

Background

Health Impact Assessment (HIA) is a combination of procedures, methods and tools by which a policy may be judged as to its potential effects and its distribution on a population's health. Screening policies to identify candidates for applying HIA is an essential first step, generally qualitative. Our aim is to show how to use exploratory multivariate statistical methods such as cluster analysis to screen through policies and pinpoint priorities for HIA quickly and reliably.

Methods

A panel of 7 public health experts from Nova University in 2011 rated 76 policies proposed by a Technical Group planning the Portuguese hospital reform on a 10-point scale (1-Very low to 10-Very high) regarding Potential Impact, Ease of implementation and Implementation costs. Hierarchical cluster analysis is used to identify groups of similar policies and prioritize those more pertinent of being considered for HIA.

Results

We identify 7 groups of policies and find that Ease of implementation is not as relevant to differentiate groups as Potential impact and Implementation costs: 3 groups present higher mean levels of potential impact (with respectively higher, intermediate and lower mean levels of implementation costs); 2 groups present intermediate mean levels of potential impact (with higher and lower mean costs respectively); 2 groups present lower mean levels of potential impact (with higher and lower mean costs respectively).

Groups of policies are then re-ranked through different priority criteria, but Group 1 leads all possible scenarios pinpointing the most obvious candidates for HIA.

Conclusions

Applying methods such as hierarchical cluster analysis as early as the screening step of HIA may be very helpful towards obtaining evidence based, reliable, participatory, flexible and more efficient ways of selecting policies for HIA.

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Key messages

- Although multivariate statistical methodologies may seem complex, decision-makers obtain more evidence-based knowledge and in an easy way to grasp
- This methodology may be used in other forms of assessments and in different countries

Review of an innovative approach to practical public and clinical health trials

Clare Relton

K Thomas[1], M Burbach[2], R Uher[3]
[1]University of Sheffield, UK
[2]Utrecht Medical Centre, Utrecht, The Netherlands
[3]Dalhousie University, Canada
Contact: C.relton@sheffield.ac.uk

Background

The 'cohort multiple randomised controlled trial' (cmRCT) is an innovative approach to the design and conduct of comparative effectiveness trials (Relton et al 2010). The design utilises a large observational cohort of patients with the condition of interest with regular measurement of outcomes for the whole cohort. This provides a facility for multiple randomised controlled trials (RCTs) embedded within the cohort, public health and/or clinical trials. Information and consent processes aim to replicate those in routine healthcare.

Methods

Information was identified through citations of the original article (Relton et al 2010) augmented by trial expertise networks. Studies were included if they had protocols which cited the cmRCT design and had relevant approvals for the establishment of the cohort. Data were extracted from study protocols, articles and presentations describing the rationale for using the cmRCT design.

Results

16 studies implementing the cmRCT design were identified in the UK, Canada and The Netherlands in both public health and clinical settings. Cohort sizes varied from 345 to 22,706.

The condition of interest for each cohort either focussed on a single disease or injury (e.g. hip fracture, degenerative knee injury, scleroderma, breast cancer, colorectal cancer, bone metastases, homeopathy), or had a broader focus (e.g. populations at risk of falls, frailty, long term conditions, depression, mental health problems). Within these 16 cohorts 18 ongoing or completed trials were embedded.

Conclusions

This is the first review of the cmRCT design in practice and brings together the experiences of Canadian, Dutch and UK researchers implementing the design. Due to the challenges of identifying studies in their early stages, not all studies using or planning to use the cmRCT design have necessarily been identified. The description of the 16 studies identified will serve as a guide to researchers interested in using the cmRCT design. Future research needs to (i) assess if/when this design is preferable to the standard approach to RCT design, (ii) explore whether the design could be applied to existing cohorts and (iii) monitor the potential of this design to facilitate healthcare trials of all varieties.

Key messages

- The 'cohort multiple randomised controlled trial' (cmRCT) is an innovative approach to the design and conduct of comparative effectiveness trials in public health and/or clinical health
- This review of early implementation of the design demonstrates some acceptability of the design in a wide range of settings in the UK, Canada and the Netherlands

Health and unemployment - a 14 years follow-up on labour force exit in the Norwegian HUNT study

Silje L. Kaspersen

SL Kaspersen[1,2], K Pape[1], GÅ Vie[1], SO Ose[2], S Krokstad[1,3], D Gunnell[4], JH Bjorngaard[1,5]
[1]Norwegian University of Science and Technology, Dep. of Public Health and General Practice, Trondheim, Norway
[2]SINTEF Technology & Society, Dep. of Health, Trondheim, Norway
[3]Psychiatric Department, Levanger Hospital, Nord-Trøndelag Health Trust, Norway
[4]University of Bristol, School of Social and Community Medicine, Bristol, UK
[5]Forensic Department and Research Centre Bröset, St. Olav's University Hospital Trondheim, Trondheim, Norway
Contact: silje.kaspersen@ntnu.no

Background

Many studies have investigated how unemployment influences health, less attention has been paid to the reverse causal direction; how health may influence the risk of becoming unemployed. We prospectively investigated a range of health measures and subsequent risk of unemployment during 14 years of follow-up.

Methods

Self-reported health data from 32,463 participants in the Norwegian HUNT2 Study (1995-97) was linked to the National Insurance Database from 1992 until 2008. Cox' proportional hazard models were used to estimate hazard ratios (HR) of unemployment on seven health measures. Adjustment variables were age, sex, education, marital status, occupation and lifestyle.

Results

Compared to reporting no conditions/symptoms, having ≥ 3 chronic somatic conditions (HR 1.93, 95% CI 1.58-2.36) or high symptom levels of anxiety and depression (HR 1.77, 95% CI 1.52-2.07) nearly doubled the risk of subsequent unemployment after adjusting for sex, age, education and marital status. Poor self-perceived health (HR 1.49, 95% CI 1.34-1.65), insomnia (HR 1.32, 95% CI 1.19-1.45), gastrointestinal symptoms (HR 1.25, 95% CI 1.16-1.35), high alcohol consumption (HR 1.22, 95% CI 0.99-1.51) and musculoskeletal pains (HR 1.08, 95% CI 1.00-1.17) were also associated with increased risk of unemployment. Further adjustment for lifestyle moderately attenuated the estimates.

Conclusion

People with poor mental and physical health are at increased risk of job loss. This contributes to the increased risk of poor health amongst the unemployed and highlights the need for policy focus on the health and welfare of out of work individuals, including support preparing them for re-integration in the workforce.

Key messages

- This study found evidence of health selection to unemployment in Norway by linking baseline self-reported health data (1995-1997) to 14 years of follow-up in national registers
- Our findings suggest a call for health perspectives in public employment programs - also in generous welfare states

5.C. Pitch presentations: Migrant health and healthcare

Taking action to rebuild: violence experienced by migrants consulting Doctors of the World in Europe

Pierre Chauvin

N Simonnot[1], C Vuillermoz[2], F Vanbiervliet[1], M Vicart[1], P Chauvin[2]
[1]Doctors of the World - Médecins du Monde International Network, Paris, France
[2]INSERM, Sorbonne Universités, UPMC Univ Paris 06, UMRS 1136, IPLESP, ERES, Paris, France
Contact: pierre.chauvin@inserm.fr

Background

Since 2006, the Doctors of the World (DOW) International Network Observatory has been conducting multicenter surveys in Europe among vulnerable people – the vast majority of whom are immigrants – who make use of of its national programs, in order to describe their social and health-related characteristics and access to care, with the goal of informing the public authorities and European institutions and bringing about positive changes.

Materials and Methods

A cross-sectional analysis of routine data collected from 23,341 patients who availed themselves of the MdM clinics in 26 cities in 11 countries in 2014 (Belgium, Canada, France, Germany Greece, the Netherlands, Spain, Sweden, Switzerland, Turkey and United Kingdom), 1809 of whom were interviewed about the violence they may have experienced in their lives. For foreign citizens, note was taken of when the violence occurred: in their country of origin, during migration journey, or in the host country.

Results

84.4% of the interviewees had experienced one or more episodes of violence. 52.1% had lived in a country at war, 43.3% had been threatened physically or imprisoned for their ideas, 39.1% had suffered violence at the hands of the police or armed forces, 42.1% had been subjected to psychological violence, and 14.9% had been victims of rape (24.1% of the women and 5.4% of the men). 35.7% had suffered from hunger. It was also found that 9.8% had experienced violence after arriving in Europe, in particular, hunger (40.8%) or confiscation of their identity papers and money (37.1%). One in 5 rapes was committed after they had arrived in Europe.

Discussion

The high rate of experiences of violence confirms the importance in primary care to systematically ask patients, especially migrants, about violence, given its consequences, including its long-term consequences. In the vast majority of cases, their management is a primary health care concern.

Key messages

- Violence experiences are very frequent among vulnerable migrants
- They should be systematicaly screened in primary care

Social support for South Asian parents with severe illness: a multiperspective qualitative study

Maria Kristiansen

EM Gaveras[1], M Kristiansen[1], A Worth[2], T Irshad[2], A Sheikh[2,3]
[1]Danish Research Centre for Migration, Ethnicity and Health (MESU), Department of Public Health, University of Copenhagen, Copenhagen, Denmark
[2]Primary Palliative Care Research Group, Centre for Population Health Sciences, The University of Edinburgh, Edinburgh, UK
[3]Harkness Fellow in Health Care Policy and Practice, Division of General Internal Medicine and Primary Care, Brigham and Women's Hospital/ Harvard Medical School, Boston, Massachusetts, USA
Contact: makk@sund.ku.dk

Background

There is little previous work investigating palliative care needs among ethnic minority groups and in particular needs of ethnic minority parents who are severely ill and are coping with parenting of young children. These patients may face complex challenges in coping with the physical, mental and social consequences of life-limiting illness and at the same time provide care to their young children. The aim of this study was to explore experiences of social support needs among South Asian Muslim patients with life-limiting illness, living in Scotland, who are parents of young children.

Methods

We conducted a secondary analysis of data from a multi-perspective, longitudinal Scottish study involving in-depth semistructured interviews with patients, their nominated carers and healthcare professionals. Data were analysed using interpretive phenomenological analysis and focused on access to and provision of social support. Participants included South-Asian Muslim patients with life-limiting illness with children under the age of 18 ($n = 8$), their carer ($n = 6$) and their nominated healthcare professional.

Results

Open-ended qualitative interviews identified four main themes: (1) parental sadness over being unable to provide tangible support; (2) parental desire to continue to provide emotional support; (3) limited availability of informal social support networks; and (4) differing perspectives between healthcare professionals and patients on patient access to social support sources, with a subtheme being the capacity of male carers to provide social support.

Conclusions

South-Asian parents at the end of life had limited access to extended-network support. Gender roles appeared as challenging for healthcare providers who at times overestimated the amount of support a female carer could provide and underestimated the amount of support male carers provided. Implications for practice include the need for greater awareness by healthcare providers of the social support needs of ethnic minority and migrant parents with life-limiting illnesses and especially an awareness of the importance of the role of male and female carers. Further research is needed to explore how the timing of migration impacts the need for and availability of tangible and emotional informal social support among ethnic minority parents with life-limiting illness.

Key messages

- There is a need for more awareness of social support needs among ethnic minorities and adaptation of palliative care to meet these needs
- More research is needed into palliative care provision for culturally and linguistically diverse populations

Migrants' perceptions of aging and remigration: findings from a Danish qualitative study

Maria Kristiansen

M Kristiansen[1,2], LL Kessing[1], M Norredam[1,3], A Krasnik[4]
1 Danish Research Centre for Migration, Ethnicity, and Health, Department of Public Health, Faculty of Health and Medical Sciences, University of Copenhagen, Copenhagen, Denmark
2 Center for Healthy Aging, Department of Public Health, Faculty of Health and Medical Sciences, University of Copenhagen, Copenhagen, Denmark
3 Section of Immigrant Medicine, Department of Infectious Diseases, Copenhagen University Hospital, Hvidovre, Denmark
4 University of Copenhagen, Department of Public Health, Corenhagen, Denmark
Contact: makk@sund.ku.dk

Background

The increasing number of elderly migrants in Europe poses challenges for the organisation of healthcare and social services if these migrants do not remigrate to their countries of birth at old age. More insight into perceptions of aging among migrant women is needed to inform service delivery for culturally and linguistic diverse populations, yet few studies have explored this field. The aim of this study is to explore perceptions of aging among middle-aged migrant women, with emphasis on identifying factors shaping their decisions on whether to remigrate or stay in Denmark during old age.

Methods

The study is based on 14 semi-structured interviews including a total of 29 migrant women residing in Copenhagen, Denmark. The women were born in Somalia, Turkey, India, Iran, Pakistan, or Middle Eastern countries. The majority of participants were middle-aged and had one or more chronic illnesses. The analysis was inspired by phenomenological methods and guided by theory on access to services, social relations, and belonging.

Results

The results showed that the existence of chronic conditions requiring frequent use of medical care and the availability of high-quality healthcare in Denmark were important factors for the decision to spend one's old age in Denmark rather than to remigrate to one's country of origin. Similarly, availability of social services providing financial and tangible support for the elderly was perceived to be important during old age. For these middle-aged women, social ties to children and grandchildren in Denmark and feelings of belonging further nourished a wish to stay in Denmark rather than remigrating.

Conclusions

Since the study suggests that elderly migrants will be utilising healthcare and social services in Denmark rather than returning to their countries of birth, these services should prepare for increased cultural and linguistic diversity among users. This could entail provision of translators, specific outreach programmes, and culturally adapted services to meet elderly from diverse linguistic, religious, and cultural backgrounds.

Key messages

- Access to healthcare and social services, and existing social ties are shaping decisions on remigration among elderly migrants
- Healthcare and social services should prepare for increased cultural and linguistic diversity among users

Utilization of preventive care among people with migrant Background

Alexander Rommel

A Rommel
Robert-Koch-Institute, Berlin, Germany
Contact: a.rommel@rki.de

Background

The European societies are increasingly challenged to ensure equal access to health services for migrant communities. Particularly, the use of preventive care should not strongly depend from social characteristics: Preventive services help to early detect health problems and mitigate health inequalities. We ask to what extend migrant background (MB) determines the utilization of preventive care.

Methods

The sample of the German Health Interview and Examination Survey for Adults (DEGS1) (2008-2012, n = 7,987) contains 1,107 respondents with MB. General health checks (GHC) and skin cancer screening (SCS) serve as exemplary outcomes. Apart from sex, age and socio-economic status (SES) logistic regression considers 1st and 2nd migrant generation, length of stay (1st generation) and 1- vs. 2-sided MB (2nd generation). Utilization rates are presented as model based predictions.

Results

Compared to non-migrants utilization is markedly lower especially in 1st generation migrants with short length of stay (<=5 years) (OR: 0.33 [95%-CI: 0.17-0.64] for SCS, OR: 0.38 [0.23-0.62] for GHC). For this sub-group predictions at medium age and SES result in utilization rates of 9.5% (95%-CI: 3.8-15.2) in men and 11.4% [4.5-18.3] in women for SCS and 21.8% [13.7-29.9] in men and 25.2% [16.2-34.2] in women for GHC. Service use is more than twice as high in non-migrants with predicted rates of 24.3% (21.7-26.8) in men and 28.2% (25.8-30.6) in women for SCS and 41.7% (38.1-45.2) in men and 46.2% (43.0-49.4) in women for GHC. Similar non-significant tendencies are found for 2nd generation migrants with 2-sided MB.

Conclusions

MB and length of stay strongly determine the utilization of preventive care. Thus, our findings suggest substantive inequities in access. Utilization should be increased by informing about existing services early after immigration. Whether inequities persist in 2nd generation migrants with 2-sided MB should be followed up in further research.

Key messages

- In migrant communities length of stay is a strong predictor for the utilization of preventive care
- To promote better access to care targeted information about existing services should start early after immigration

Evaluation of genetic risk related to high fasting glucose level in the Hungarian Roma population

Szilvia Fiatal

Sz Fiatal[1,3], V Tomori[1], P Pikó[1], Á Moravcsik-Kornyicki[2], B Soltész[1], A Nagy[1], J Sándor[1], R Ádány[1,3]
[1]Department of Preventive Medicine, Faculty of Public Health, University of Debrecen, Debrecen, Hungary
[2]MTA-DE Public Health Research Group of the Hungarian Academy of Sciences, Faculty of Public Health, University of Debrecen, Debrecen, Hungary
[3]WHO Collaborating Centre on Vulnerability and Health, Department of Preventive Medicine, Faculty of Public Health, University of Debrecen, Debrecen, Hungary
Contact: fiatal.szilvia@sph.unideb.hu

Background

Studies showed that health status of Roma population, which represents the largest minority in Central and Eastern Europe, is significantly worse than that of the general population. It is recently pointed out that the prevalence of raised fasting plasma glucose or known type 2 diabetes mellitus (FPG/T2D) were significantly higher in all age groups in the Hungarian Roma (HR) population than in the Hungarian general (HG) population. Our aim was to identify whether a genetic susceptibility contributes to higher FPG/T2D in the HR population.

Methods

Eighteen single nucleotide polymorphisms were genotyped (Sequenom, MassARRAY platform) in 753 samples from the population of Roma and 1783 samples from the HG population. A genetic risk score (GRS), both unweighted and weighted were constructed for each individual and were compared using two sided t test. Considering the confounding effects of age, gender and BMI on differences in GRS between study populations, analysis of variance models were constructed.

Results

Although Roma people do not carry more risk alleles than Hungarians counterparts (20.5 ± 2.8 vs. 20.3 ± 2.9, P = 0.19), the average weighted GRS was significantly higher among them comparing to Hungarians (0.51 ± 0.08 vs. 0.49 ± 0.08, p = 4.8X10-4, respectively). This increase causes the distribution of genetic risk to be right-shifted in HR population compared to HG population. Adjustment for confounding factors did not change the inference of mean difference in weighted GRS (P = 5X10-3). Modelling of cumulative GRS suggested that the per-allele effect estimates are slightly also higher in HR than in HG population (OR= 1.1 vs. OR = 1.08, respectively).

Conclusions

GRS modelling showed that Roma individuals have greater burden of risk alleles compared to HG population. It suggests that there are ethnic specific differences in genetic architecture underlying raised FPG/T2D, which fosters the stratification of the Hungarian population according to T2D disease risk.

Key message

- Public health intervention improving Roma poor health status affected by socio-economic determinants needs to consider involvement of genetic susceptibility to the observed metabolic disturbances

Identifying women with female genital mutilation seen by midwives in the Netherlands

Dineke Korfker

DG Korfker, K Herschderfer, KM vd Pal-de Bruin
Child Health, TNO, Leiden, The Netherlands
Contact: dineke.korfker@tno.nl

Background

In Europe, the number of women with Female Genital Mutilation (FGM) is often calculated using the prevalence rates from their countries of origin. A Dutch study in 2008 compared two methods to calculate the prevalence of FGM: country of origin in the whole population versus an estimation of FGM as reported by midwifery practices in a population of women during pregnancy, birth and the postpartum period. The lower prevalence found in the midwifery population (0.32%) was possibly caused by lack of knowledge by midwives in identifying FGM. The Ministry of Health was advised to facilitate an educational programme for midwives over the identification of FGM and an e-learning programme was developed and implemented a few year thereafter. In 2014, this study was undertaken to investigate the influence of the e-learning programme on the estimated prevalence of FGM as reported by midwives.

Methods

Data were collected through a structured questionnaire sent to all (535) midwifery practices in the Netherlands asking them to report on the number of women with FGM they saw in 2013 and about their participation in the FGM e-learning programme. Descriptive and comparative analysis was carried out using SPSS 22.

Results

The response rate for midwifery practices was 78,5% (n = 420) During the study period, Dutch midwives saw 131.530 women (77% of the total live births in 2013) of which 0.5% (n = 664) were identified with FGM. The number of respondent midwifery practices that had completed the FGM e-learning programme was 144 (34.3%). These practices identified almost half of the total number of reported cases of FGM reported by the midwifery practices.

Conclusions

Compared to 2008, the increase seen in the estimation of FGM prevalence in 2013 by midwifery identification may possibly be related to midwives having completed the e-learning programme on FGM identification established in 2012. Further study is needed to further investigate if other demographic or social factors could have contributed to this finding.

Key messages

- This study suggests that Dutch midwives who have completed a specific tailor made e-learning programme for FGM are better enabled to discuss FGM openly with their patients
- Estimation of FGM prevalence based on information identified in the population of Dutch midwifery patients may be more reliable after the completion of a special e-learning programme for midwives

Is the level of acculturation associated with how symptoms of common mental disorder are manifested?

Petter Tinghög

P Tinghög, F Saboonchi
[1]Section of Insurance Medicine, Karolinska Institutet, Stockholm, Sweden
[2]Red Cross University College, Stockholm, Sweden
Contact: petter.tinghog@ki.se

Background

Symptoms of common mental disorders (CMDs) are known to vary across cultures. It is however not established whether the mode of experiencing or expressing such symptoms are persistent over life or whether it may change through the process of acculturation when migrating to a new cultural environment. This study aims to test if manifestations of CMD are associated with the level of socio-cultural acculturation in a sample of Iraqi immigrants in Sweden.

Methods

In a Swedish study, 251 Iraqi immigrants' symptoms of CMD were assessed with either a Swedish or an Arabic version of the Hopkins Symptom checklist (HSCL-25). Their level of socio-cultural acculturation was approximated on the basis of years since migration, proportion of life lived in Sweden and proficiency in Swedish after which they were classified into two equally sized groups. Ordinal regression analyses were performed to assess uniform and non-uniform Differential Item Functions (DIFs) of 25 HSCL items.

Results

Overall, the HSCL-25 items had fairly marginal DIFs, in that none of the 50 examined DIFs substantially altered the explained variances of the models. Nonetheless, Iraqi immigrants with a higher level of acculturation tended to less often express or experience CMD in terms of ''worthlessness'', odds ratio (OR) 0.41 ($p < 0.01$), or ''hopelessness about the future'', OR 0.50 ($p < 0.01$). On the other hand they more often experienced/expressed CMD as ''feeling fearful'', OR 2.29 ($p < 0.01$). None of the HSCL-25 items exhibited a significant (i.e., $p < 0.01$) non-uniform DIF, although the item ''crying'' might potentially be a weaker predictor of CMD among those with a lower level of acculturation ($p = 0.02$).

Conclusion

How CMD is manifested is influenced by immigrants' socio-cultural acculturation. In order for health care personnel to adequately assess immigrants' mental health status they need to be aware that acculturation level influence how symptoms of CMD are experienced or expressed.

Key message

- Health care personnel need to be aware that presentation of common mental disorders among immigrants may be influenced by level of acculuration

5.D. Pitch presentations: Evidence from urban health research

A city health policy for London based on learning from global cities

Yvonne Doyle

Professor: Yvonne Doyle
Public Health England, UK
Contact: yvonne.doyle@phe.gov.uk

Presenting problem

150 cities have emerged as notable, with a global population less than 12%, they generate 46 % of world GDP. These cities show a combination of communicable and non-communicable epidemiology and have stark inequalities and variable provision of primary care. Little comparative work

has been published about policies that address city health challenges.

Description of the problem

I visited Paris and New York with a small team to examine in detail how political and professional leaders address a range of complex health challenges. Practical methods were critically appraised with a focus on measurable outcomes over time and how these are communicated to the public. Research questions included:

1. What methods led to large scale change?
2. How important is political leadership?
3. Were the lessons transferable?

Results

New York and Paris have similar health challenges. They differ in population profile and health risk factors but have emerged from the recession with striking inequalities. Despite having different levers for promoting and protecting health they both have achieved health improvements. An outcome focused, city health policy has been developed for London which is modeled on the most successful policy interventions from comparator cities. This is innovative for London, where cooperation and city wide public health plans are sometimes difficult.

Lessons

Evidence and empirical public health methods were used together with an asset based approach to improve health outcomes in two different global cities. These methods and lessons are transferable but require political and in some cases, legal enablers. London is using these methods to implement a jointly owned ambitious health plan.

Key messages

- It is urgent to move from describing problems towards leading large scale change which will address modern epidemics and reduce demand on healthcare systems
- Little comparative work has been published about policies that address city health challenges

Walk Score and Physical Activity Among Adults in the Paris Metropolitan Area: A GPS Study

Dustin Duncan

DT Duncan[1,2,3,4], J Méline[5,6], Y Kestens[7], K Day[8], L Trasande[1,2,9], B Chaix[5,6]

[1]Department of Population Health, New York University School of Medicine, New York, NY USA
[2]Global Institute of Public Health, New York University, New York, NY, USA
[3]Population Center, New York University, New York, NY, USA
[4]Center for Data Science, New York University, New York, NY USA
[5]Sorbonne Universités, UPMC Univ Paris 06, UMR_S 1136, Pierre Louis Institute of Epidemiology and Public Health, Paris, France
[6]Inserm, UMR_S 1136, Pierre Louis Institute of Epidemiology and Public Health, Paris, France
7 Department of Social and Preventive Medicine, University of Montreal, Montreal, Canada
[8]Department of Technology, Culture and Society, New York University Polytechnic School of Engineering, New York, NY USA
[9]Departments of Pediatrics and Environmental Medicine, New York University School of Medicine, New York, NY, USA
Contact: dustin.duncan@nyumc.org

Background

Very few studies have analyzed the relationship between Walk Score and walking assessed with GPS data and have examined the influence of Walk Score with trips. The purpose of the current study is to examine associations at the trip level between Walk Score, transport mode choice, and physical activity among Paris adults—who were tracked with GPS receivers and accelerometers.

Methods

In the RECORD GPS Study, participants were tracked 7 days with GPS receivers and accelerometers. Participants were surveyed with a GPS-based web mapping application on their activities and modes in each trip over 7 days (227 participants, 4,633 trips $\leq$2.5 miles of length). Walk Score, which calculates neighborhood walkability, was assessed for origin/destination of each trip. Multilevel logistic and linear regression analysis was conducted to estimate associations between Walk Score and walking in the trip or accelerometry-assessed steps in the trip, after adjustment for individual/neighborhood characteristics and the distance covered in the trip.

Results

In adjusted trip-level associations between Walk Score and walking in the trip, we found that a walkable neighborhood in the trip origin and trip destination was associated with increased odds of walking in the trip (from the survey). The odds of walking in the trip were 2.49 (95% CI: 1.67 to 3.70) times higher when the Walk Score for the trip origin was "Walker's Paradise" compared to less walkable neighborhoods (Very/Car-Dependent or Somewhat Walkable). The number of steps per 10 minutes of trips (as assessed with accelerometry) was higher in walkable neighborhoods (i.e. "Very Walkable" neighborhoods) for the trip origin, but not for the trip destination.

Conclusion

Walkable neighborhoods were associated with increases in walking among adults in Paris, as documented at the trip level. Creating walkable neighborhoods may increase walking and therefore could be a relevant health promotion strategy.

Key messages

- Most studies evaluating association between Walk Score and physical activity outcomes have been conducted in the U.S. This is the first Walk Score study that has been conducted in France
- Walkable neighborhoods were associated with increases in walking among adults in Paris, as documented at the trip level. Creating walkable neighborhoods may increase walking

Mortality following acute myocardial infarction in Norway: Do municipal health services matter?

Eliva Ambugo

EA Ambugo, TP Hagen

Department of Health Management and Health Economics, Institute of Health and Society, University of Oslo, Norway
Contact: e.a.ambugo@medisin.uio.no

Background

Studies link area features (e.g., neighborhood socioeconomic disadvantage) to poor health outcomes. However, the effects of area-level health services on mortality are understudied. We examine the extent to which municipal health services (e.g., access to general practitioners) account for municipal variation in all-cause and cardiovascular disease mortality (CVD). Identifying such influences should motivate further inquiry into potential mechanism through which the organization and delivery of healthcare in welfare states such as Norway shapes survival; and in so doing contribute to the evidence base for policy interventions.

Methods

Multilevel logistic models are fitted on national registrar data for the population of Norwegians (N = 5,532, age 18+) from 50 municipalities who were hospitalized for acute myocardial infarction (AMI) in 2009.

Results

There is significant municipal variation in all-cause but not CVD mortality (random intercept: SD=.13; SE = .05). There are no significant fixed effects of municipal health services on mortality in bivariate models. Patients' characteristics fully account for municipal variation in all-cause mortality. For example, longer length of hospital stay within a year of the index admission for AMI (OR = 1.20, 95% CI = 1.10-1.30), a previous diagnosis of dementia (OR = 2.06, 95% CI = 1.53-2.77), or being male (OR = 1.21, 95% CI = 1.02-1.43) are linked to higher odds of death; whereas having more wealth (OR = .90, 95% CI = .83-.97) is associated with lower risk of death.

Conclusions

Municipal variation in all-cause mortality for Norwegian AMI patients appears to be driven not by differences across municipalities in health service levels, but by differences across municipalities in the composition of patients. Focusing on chronic disease prevention and treatment; and tackling personal and structural risk factors embedded within patient's sociodemographic characteristics may be especially beneficial for longevity.

Key messages

- Municipal variation in all-cause mortality among Norwegian AMI patients is not due to municipal variation in health service levels, but is rather explained by patients' characteristics
- Findings suggest that, for improved longevity, efforts should be aimed at addressing person-level risk factors such as low socioeconomic status and chronic illness

From global to local? #YouCan! Lessons learned from a WHP campaign at Local Health Authority – Milan

Alessandra Lafranconi

A Lafranconi[1], GMC Chadenier[1], T Rotelli[2], S Sacchi[2], M Flammini[2], L Ronchi[2], C Cassatella[2], MC Bonazzi[1], A Donzelli[2]
[1]Università degli Studi Milano Bicocca, Italy
[2]Azienda Sanitaria Locale Milano, Italy
Contact: a.lafranconi1@campus.unimib.it

Issue

According to WHO, workplace is considered an ideal setting for health promotion of medium to large communities.

Employees of health facilities are often seen as referee by the general population, and can therefore multiply the effect of a health promotion campaign.

Description

#YouCan is a workplace health promotion campaign through email and social networks for the Local Health Authority employees and their contacts, aimed at promoting healthy lifestyles and non-pharmacological alternatives, thus reducing the consumption of potentially inappropriate medications (disease-mongering).

Participants were invited to engage in a behavioral and/or pharmacological change, taking on a challenge; two questionnaires were administrated to assess achievements.

Participants who publicly stated their challenge entered the "change-game", whose prizes were offered by our partners Altroconsumo, Coop Lombardia, Mensas@na, Fondazione Allineare Sanità e Salute.

Results

196 people replied to #YouCan invitation and agreed to receive evidence-based messages weekly, from November 2014 to February 2015.

142 participants answered to final questionnaire; preliminary results show that 126 people engaged in a change, which included nutrition (n = 93), physical activity (n = 72) and drug consumption (n = 47). Vitamins and supplement (n = 17) and proton-pump inhibitors (n = 20) saw the highest withdrawn.

#YouCan recorded an overall satisfaction of 7.6/10. Improvement of personal knowledge (health literacy) was self-measured as 7/10.

Facebook page was opened 227 times directly from email messages (minimum: 9 times/week; maximum: 30 times/week); Twitter profile was accessed 40 times.

Lessons

Results showed that social networks were not highly accessed; personal contacts (either one to one, or group meetings) had higher demand. Gamification was appreciated and contributed to behavioral changes.

In next editions new requested areas and group activities should be put in place, and gamification should be maintained.

Key message

- Workplace health promotion campaigns through email and social networks are feasible, increase health literacy and can stimulate changes in lifestyles and in inappropriate pharmacological treatments

Information sources, expectations and hurdles to prevention in urban women

Sabine Oertelt-Prigione

S Oertelt-Prigione[1,2], U Seeland[1,2], M Rücke[1], V Regitz-Zagrosek[1,2,3]
[1]Institute of Gender in Medicine, Charité – Universitätsmedizin, Berlin, Germany
[2]Deutsches Herz-Kreislaufforschungszentrum (DZHK), Germany
[3]Center for Cardiovascular Research, Charité-Universitätsmedizin, Berlin, Germany
Contact: sabine.oertelt-prigione@charite.de

Background

Cardiovascular diseases represent the major cause of mortality for women worldwide, yet uptake of preventative measures and lifestyle changes is limited. We analyzed information sources, lifestyle measures, uptake barriers and expectations in the female urban population.

Methods

1062 urban women aged 25–74 years were enrolled in the BEFRI (Berlin Female Risk Evaluation) study. Information was elicited by questionnaires and clinical examination. Participants were asked about lifestyle factors, subjectively perceived hurdles and expectations, as well as sources of health information. Behavioral patterns, wishes and hurdles were evaluated in multivariate analysis using social, economic and clinical data as independent explanatory variables.

Results

Information sources for health and prevention varied. Physicians and pharmacists were only reported as primary sources if recent or frequent access, due to e.g. follow-up visits, was granted. Magazines and newspapers were cited as the main source by older women and TV by women with low income jobs. Internet consultation for health information significantly decreased with income (OR = 0.8, C.I. = 0.7-0.9, for each of 5 wage brackets).

49.6 % of the study participants reported lifestyle measures (e.g. weight control, physical activity, relaxation techniques, smoking cessation etc.) in the last 12 months with no significant age differences. Target specificity was reached, with e.g. overweight or diabetic women more frequently engaged in weight management efforts (adjusted, respectively, OR = 3.9, C.I. = 1.7-9.3 and OR = 4, C.I. = 1.5-10.8). Perceived hurdles such as e.g. fear of inability to change or fear of lack of physical ability for lifestyle changes as well as expectations diverged. Social rewards were most relevant in women living alone, proximity to work most important for women with children and higher earning brackets and opportunity to perform measures at home preferred by overweight women and women with previous tumours.

Conclusions

We identified differences in information access, patterns, expectations and limitations for the uptake of preventative lifestyle measures by different subgroups of urban women that should be taken in consideration for the development of future information campaigns and for general health counselling.

Key messages

- Preventive measures for urban women need to take their information sources into account
- Perceived hurdles to prevention differ in urban women and should be investigated appropriately

Social support act, participation and self-reliance in vulnerable people: Breda 2013

Sandra Kuiper

S Kuiper[1], D Mioch[1], R Aarts[2], HT Kroesbergen[1], JAM van Oers[3]
[1]Dept of Research and Policy, National Public Health Service, Breda, The Netherlands
[2]Dept of Research and Information, municipality Breda, Breda, The Netherlands
[3]Dept of Health System Assessment and Policy Support, National Institute for Public Health and the Environment, Bilthoven, The Netherlands
Contact: s.kuiper@ggdwestbrabant.nl

In many western countries civilians are expected to be more self-supporting and participate in society more intensively. Furthermore, the emphasis on health as a personal responsibility is associated with a more withdrawn governmental role. In The Netherlands at the start of 2015 the new Social Support Act (WMO) came into force, aiming at stimulating self-support and participation of vulnerable groups, and shifting responsibilities from central to local government. These changes may affect civilians' health in terms of self-reliance.

In order to implement these changes effectively the municipality Breda needs insight into participation, costs and effects of WMO use. This study represents the situation of a specific vulnerable group prior to the decentralisation.

Research question

To what extend do social assistance (SA) receivers participate, what is the amount of WMO use and costs and how self-reliant are they?

Methods

Using data of 2013 from the municipality Breda, frequencies of WMO use and costs, participation and the rate of self-reliance were analysed.

Results

2.7% of all Breda civilians received SA and 1.6% (n = 3063) had difficulties to integrate to work. Data on participation were available from 1026 of the 3063 people. From these 1026 people 50% were non-, 11% Western- and 39% non-Western immigrants. 10% used WMO supplies. Total WMO costs were €312.216. 65% participated. Non-Western immigrants participated significantly less frequently (28%) than Western- (44%) or non-immigrants (41%). Finally, 63% was limited self-reliant at one or more domains

Conclusions

The study group (0,9% of all WMO supply consumers in Breda) consumed 2,0% of the total WMO costs. The finding that non-Western immigrants participated less frequently than other ethnic groups can partly be explained by familiarity with the system. Of concern in this decentralization process are the low rates of self-reliance. Can we expect that these people become more self-reliant in the coming years?

Key messages

- Under new Dutch legislation people are expected to become more self-supporting
- In Breda 63% of the civilians with a dependence on social support are limited self-reliant and have difficulties to integrate to work

Mobility, personal exposure to noise, and blood pressure in hypertensives in the Paris region

Julie Méline

J Méline, B Chaix
Sorbonne Universités, UPMC Univ Paris 06, INSERM, Institut Pierre Louis d'épidémiologie et de Santé Publique (IPLESP UMRS 1136), F75012, Paris, France
Contact: julie.meline@inserm.fr

Background

In response to several short-term risk factors such as noise, higher levels of blood pressure in hypertensives increase the risk of triggering cerebrovascular and cardiovascular events. Aortic blood pressure, which is physiologically lower than brachial blood pressure, may be more susceptible to show variations related to stress factors such as noise. Very few studies have analyzed the short-term stimulus-response relationship in daily activities and trips between individual exposure to noise and brachial and aortic blood pressure in hypertensives.

Methods

In the RECORD-Multisensors Study, 16 hypertensive participants wore a personal noise dosimeter and a holter for 24 hours for blood pressure as well as a GPS, an accelerometer, and a galvanic skin response (GSR) sensor. Multilevel regression analysis, applied to data at the activity place/trip level or at the blood pressure measurement level, with a random effect at the individual level, was conducted.

Results

After adjusting for individual sociodemographic factors and daytime/nighttime period, the personal exposure to noise was high during trips compared with activity places. This exposure was also higher at the workplace and in other activity places, compared to the place of residence. After adjusting for individual factors and daytime/nighttime periods, individual noise exposure was positively associated with brachial blood pressure and aortic blood pressure.

Conclusions

Depending on their activity patterns and transport modes used, hypertensives are exposed to very different levels of noise during their daily lives. A better protection from noise for public transport and active mobility during trips may be favorable for cardiovascular health.

Key messages

- Personal exposure to noise was highest during trips, compared with activity places
- Individual noise exposure is positively associated with brachial and aortic blood pressure

Qualitative Evaluation: Partners in Inner-city Integrated Prenatal Care Project in Winnipeg, Canada

Maureen Heaman

M Heaman[1], L Tjaden[2], Z Marzan Chang[1], on behalf of the PIIPC Research Team
[1]College of Nursing, University of Manitoba, Winnipeg, Canada
[2]Public Health, Winnipeg Regional Health Authority, Winnipeg, Canada
Contact: Maureen.Heaman@umanitoba.ca

Background

Our previous research demonstrated high rates of inadequate prenatal care (PNC) among inner-city women in Winnipeg, Canada and identified barriers and facilitators related to use of PNC. Building on these findings, service providers, policy makers and researchers collaborated to develop the Partners in Inner-city Integrated Prenatal Care (PIIPC) Project, with the goal of reducing inequities in use of PNC. The objective of this qualitative component of the larger mixed-methods study was to explore the perspectives of women and health care providers about the PIIPC project.

Methods

A qualitative descriptive design was used. In-depth individual interviews were conducted with 22 postpartum women and 26 health care providers who participated in the PIIPC project. Purposeful and maximum variation sampling strategies were used. Interviews were digitally recorded and transcribed. Content analysis was used to identify themes and categories.

Results

The majority of women were single, low income, and self-identified as Indigenous. Women described access to PNC as convenient and coordinated. Key components included flexible scheduling and receiving incentives and assistance with transportation. Women commented on positive relationships with health care providers, using descriptors such as helpful, respectful, and nonjudgmental. A variety of health care providers participated in the interviews (physicians, midwives, nurses, social workers). Themes included better understanding of other programs, improved communication between programs, benefits of team work, and positive changes in service delivery (e.g., more accessible and convenient).

Conclusions

The PIIPC project reduced barriers to care and facilitated communication between programs, resulting in improved use of PNC by inner-city women. This project exemplifies how an integrated knowledge translation approach and building successful partnerships can contribute to health system improvements.

Key messages

- The Partners in Inner-city Integrated Prenatal Care project was successful in reducing inequities in use of prenatal care among women who experience social and economic disadvantage

- Previous research findings were used to inform an integrated knowledge translation approach to design health system improvements that resulted in improved use of prenatal care by inner-city women

5.E. Pitch presentations: From evidence to communication and advocacy

Smoking habits and acute myeloid leukemia risk: results of a systematic review and meta-analysis

Vittoria Colamesta

V Colamesta[1], M Breccia[2], S D'Aguanno[1], S Bruffa[1], C Cartoni[2], G La Torre[1]
[1]Department of Public Health and Infectious Diseases, ''Sapienza'' - University of Rome, Rome, Italy
[2]Department of Cellular Biotechnologies and Hematology, ''Sapienza'' - University of Rome, Rome, Italy
Contact: vittoria.colamesta@uniroma1.it

Background

Worldwide tobacco smoking causes nearly 6 million deaths and costs hundreds of billions of dollars of economic damage each year, due to a causal association with a wide range of diseases. The aim of the present study was to perform a systematic review and meta-analysis on smoking habits and acute myeloid leukemia (AML) onset in adults.

Methods

PubMed and Scopus were systematically searched until August 31, 2014, without restrictions of language or years of publication. Study quality was assessed according to The Newcastle-Ottawa Scale (NOS). The meta-analyses were performed according to study design and smoking habits.

Results

Twenty-seven articles (22 case-control and 5 cohort studies) were included. Ever and former smokers, compared to never, have a significant increased risk in AML onset in case-control and cohort meta-analyses [ever: OR = 1.25 (95% CI = 1.14-1.38) and RR = 1.45 (95% CI = 1.10-1.90); former: OR = 1.21 (95% CI = 1.03-1.41) and RR = 1.45 (95% CI = 1.08-1.94)]. Former smokers don't show a significant reduced risk compared to current [case-control meta-analysis: OR = 0.88 (95% CI = 0.70-1.11); cohort meta-analysis: RR = 0.96 (95% CI = 0.82-1.12)]. In the meta-analyses of cohort and high quality case-control studies, current smokers show a significant higher risk than no smokers (former and never) [OR = 1.28 (95% CI = 1.13-1.44); RR = 1.28 (95% CI = 1.00-1.64)]. Considering gender, females have not an increased significant risk while case-control and cohort meta-analyses show a significant higher risk for male ever and former smokers than never. Furthermore, increasing smoking intensity and duration, OR shift from 1.14 (95% CI = 1.01- 1.30), for 1–20 pack/years to 2.36 (95% CI = 1.42-3.93) for more than 40 pack/years. Analyzing time since quitting, only long-term quitters (20+ years) have a significant reduced risk on AML onset compared to current [OR = 0.59 (95% CI = 0.45-0.78)].

Conclusion

Smoking may function as an important non-genetic factor in AML multistep pathogenesis.

Key messages

- Smokers show a significant incresed risk to develop acute myeloid leukemia (AML) compared to subjects who never smoked
- Increasing smoking intensity and duration, the risk to acute myeloid leukemia (AML) onset enlarges

Assessment criteria for evidence based interventions aimed to reduce alcohol related harm

Sandra Radosš Krnel

W van Dalen[1], D van Dale[2], A Budde[3], S Radoš Krnel[4]
[1]Dutch Institute for Alcohol Policy, Utrecht, The Netherlands
[2]National Institute of Public Health, Bilthoven, The Netherlands
[3]Federal Centre for Health Education, Cologne, Germany
[4]National Institute of Public Health, Ljubljana, Slovenia
Contact: sandra.rados-krnel@nijz.si

To reduce alcohol related harm a wide range of interventions have been developed and brought together including in EU-funded projects. Nevertheless public health policy planners lack easy access to well described interventions that are replicable and about which reasonable evidence of effectiveness in influencing drinking attitudes or behaviours are available. Joint Action on Reducing Alcohol Related Harm is an initiative under the EU health programme to take forward the work in line with the first EU Strategy on alcohol related harm. The work is carried out through a cooperation by expert organisations from 31 European countries. RARHA's Work Package 6 aims to present a Tool Kit of interventions that have demonstrated their effectiveness, transferability and relevance.

Methods

The questionnaire to collect the examples of good practices was developed, which consists of six sections: Evidence base, Basic facts, Development, Implementation, Evaluation and Additional information. In the communication with MS representatives and WP 6 partners we decided to collect the examples of good practices appertain to one of the three groups of interventions: Early interventions, Public awareness and School-based interventions. In order to assess the collected examples we have developed the Assessment criteria based on an existing Dutch system for evaluating health-based interventions.

Results and Conclusions

45 examples from 19 European countries were collected: 20 Early interventions, 10 Public awareness and 15 School-based interventions. To be included in the Toll Kit intervention must comply with the following basic criteria: well described, implemented, theoretically sound, evaluated and with positive results. If the intervention is in line with the basic criteria it will be classified according to the level of evidence for effectiveness: Basic level, First, Good and Strong indication of effectiveness. The best examples will be presented together with the assessment procedure.

Key message

- The work presented will facilitate exchange between MS public health bodies and provide practical guidance on the adoption of evidence-based interventions to reduce alcohol related harm

What kills middle-aged Swedes? A Prospective cohort study on NCD risk factors and mortality

Ailiana Santosa

A Santosa, J Rocklöv, M Norberg, U Högberg, L Weinehall, S Wall, P Byass
Department of Public Health and Clinical Medicine, Unit of Epidemiology and Global Health, Umeå University, 90187 Umeå, Sweden
Contact: ailiana.santosa@epiph.umu.se

Background

We aimed to attribute changing risk factor exposures to patterns of premature (age 40 to 70 years) non-communicable disease (NCD) mortality in a defined population, and to assess the compound effect on individuals of multiple risk factors.

Methods

A prospective cohort study was conducted during 1990–2006, including 68,336 individual NCD risk factors at the age of 40, 50 or 60 in Västerbotten health intervention program, which were linked to cause-specific mortality data from the Swedish national data. The attributable contributions of changing risk factors over the study period to various categories of reduction premature NCD mortality were estimated using the relative risks from the Cox proportional hazards regression models. Age- and sex-adjusted mortality rates for each year of the study were calculated using Poisson regression models with various categories of premature mortality as the dependent variable.

Results

1,799 deaths occurred over 553,921 person-years in the 40 to 70 year age group, of which 82% were due to NCDs. The proportion of NCD mortality attributable to risk factors ranged from 40.1% at baseline to 32.8% in 2006, with a higher proportion for cardiovascular causes (76.2% to 67.7%) and a lower proportion for cancers (19.3% to 15.8%). Individuals with multiple risk factors were at particularly high risk: one in three deaths occurred among the 11.6% of individuals with three or more risk factors.

Conclusions

Since most premature mortality was due to non-communicable diseases, and substantially attributable to relevant risk factors, managing those risks is a critical public health issue. As well as minimising population risk factor levels, individuals with multiple risk factors need to be prioritised in view of their elevated overall risk. Sweden may not achieve the WHO target of a 25% reduction in premature non-communicable mortality from 2010 to 2025 unless non-communicable disease risk factors are further reduced.

Key messages

- This study clearly shows that multiple non-communicable disease risk factors in the same individual, which is disadvantageous, are associated with high compounded risks for every mortality group
- Since most premature mortality was due to non-communicable diseases, and substantially attributable to relevant risk factors, managing those risks is a critical public health issue

Tobacco use prevalence, knowledge and attitudes among umbrian hospital healthcare professionals

Davide Pianori

D Pianori, A Gili, A Ranocchia, N Cereda, F Stracci, G Masanotti
Department of Experimental Medicine, sec Public Health, School of Public Health, University of Perugia, Italy
Contact: davide.pianori@gmail.com

Background

Tobacco consumption in the world determines the 10% of deaths among adults and is the second leading cause of preventable death. The role of health care professionals is essential for both the prevention and for the assistance programs for smoking cessation. This study was aimed to evaluate smoking prevalence and attitudes towards tobacco among Umbrian hospital professionals in a period between 2006 and 2015.

Methods

A cross-sectional study was carried out using a questionnaire administered in 2006, 2011 and 2015 to healthcare professionals. It consists of 53 multiple-choice questions. It is divided into sections to assess: knowledge, attitudes, clinical activities and smoking habits. Potential predictors of current smoking habits were evaluated using multivariate logistic regression.

Results

Sample population was comprised of 476 health professionals (62.2% females; mean age 41,8 years; 7.6% nurses, 12.3% medical doctors, 40.5% students and 39.6% other workers). Smoking prevalence was 34.5%. 58.5% considered healthcare professional as a model for citizens and 22.2% declared to have never seen colleagues smoking cigarettes in hospital. In the three observations were not significant differences in prevalence of smoker (Obs1 33.5%; Obs2 35.4%; Obs3 31.1%). Multivariate analysis showed that a lower risk to be a smoker was observed among professionals who considered healthcare personnel as a model (OR = 0.29; 95% CI 0.11-0.74) and have a reaction against a colleague kept smoking inside the hospital.

Conclusions

The hospital staff has higher prevalence of smoking than the general population. The law that bans smoking in hospitals gave few and not significant results on the reduction of the prevalence of smokers, it has served more to increase the consciousness of no smokers than discourage smokers. Targeted interventions for the development of an adequate culture of health promotion are urgent, delegate the solution of the problem only to the law has failed.

Key messages

- The study shows that there is only an increase of people in favour of sanctions and reacting to those who smoke. The law is creating a culture of prevention higher among no-smokers than among smokers

Impact of smoking on the contribution of chronic diseases to the disability burden in Belgium

Renata Yokota

RTC Yokota[1,2], J Van der Heyden[1,3], J Tafforeau[1], WJ Nusselder[4], JM Robine[5,6], P Deboosere[2], H Van Oyen[1,3]
[1]Department of Public Health and Surveillance, Scientific Institute of Public Health, Brussels, Belgium
[2]Department of Social Research, Vrije Universiteit Brussel, Brussels, Belgium
[3]Department of Public Health, Ghent University, Ghent, Belgium
[4]Department of Public Health, Erasmus MC, Rotterdam, The Netherlands
[5]French Institute of Health and Medical Research (INSERM), Montpellier, France
[6]École Pratique des Hautes Études, Paris, France
Contact: renata.yokota@wiv-isp.be

Background

Smoking is considered the single most important preventable cause of morbidity and mortality worldwide. Moreover, smoking can increase the incidence and severity of disabling conditions. In this study, the aim was to assess the impact of smoking on the contribution of chronic diseases to the disability burden in Belgium.

Methods

Data from 23,456 individuals aged 15 years or older who participated in the 1997, 2001, 2004, or 2008 Belgian Health Interview Surveys were analysed. Disability was defined based on six activities of daily living (ADL) and/or mobility limitations. Smoking status was categorized as never and current smokers. The prevalence of disability was attributed to specific chronic diseases, using multiple additive hazard models to each smoking status, separately for men and women, under the assumption of independence between the disability causes.

Results

The age and gender standardized disability prevalence was 6.3% (95% CI = 5.6-7.0%) among never smokers and 8.7% (95% CI = 7.7-9.9%) in current smokers. The major contributors to the disability burden in both current and never smokers were low back pain, arthritis, and heart attack in men and women. Depression was also an important contributor in young individuals (15-54 years). Chronic respiratory diseases showed a higher contribution to the burden of disability among current smokers (relative contributions across age groups varied from 4 to 7% of total disability prevalence in men and women) compared to never smokers (relative contributions across age groups varied from 2 to 5% and 1 to 3% of total disability prevalence in men and women, respectively), being among the top three contributors to the disability prevalence among current smokers in Belgium.

Conclusions

Although the major contributors to the disability burden in Belgium were similar between current and never smokers, chronic respiratory diseases showed up among the top contributors to the disability prevalence in current smokers. These findings can assist policymakers to tailor strategies to tackle disability in function of the smoking status.

Key messages

- Back pain, arthritis and heart attack are the major contributors to the disability burden in Belgium and chronic respiratory diseases are among the top three contributors among smokers

Sitting is the new smoking - Modelling physical activity interventions in North Rhine-Westphalia

Monika Mensing

M Mensing, OCL Mekel
NRW Centre for Health, Bielefeld, Germany
Contact: monika.mensing@lzg.nrw.de

Background

A sedentary lifestyle has long been identified to cause negative effects on different health outcomes, e.g. coronary heart diseases, stroke and overall mortality. In North Rhine-Westphalia (NRW), substantial efforts are made to increase the amount of physical activity (PA), in order to reduce potential threats. With DYNAMO-HIA*, mathematical modelling of future PA prevalence and selected health implications in populations is feasible, supporting Health Impact Assessment of movement-promoting policies in NRW by quantitative effect estimates.

Methods

PA was operationalised by weekly amount of sporting activity. Baseline prevalence data were obtained from the German Health Interview and Examination Survey for Children and Adolescents (KiGGS, 2009–12) and the NRW-sample of telephone health survey (2009-10) for adults, both conducted by the Robert Koch-Institute. Activity data were classified into "inactive", "insufficiently active", "sufficiently active" (according to age-dependent WHO recommendations). Estimates for relative risks of sports activities on selected diseases and mortality were based on Meta analyses.

Results

Using population data of NRW, baseline prevalences of PA and related diseases and the underlying relative risks, it is possible to model future health outcomes for the NRW population. Alternative risk exposure scenarios that represent varying PA intervention approaches are compared. We present estimated future effects of long-lasting PA increasement on CHD, stroke and mortality in NRW.

Conclusions

Modelling health outcomes of movement-promoting interventions with DYNAMO-HIA provides first quantitative indications of future health benefits esp. of activity programs among children and adolescents in NRW. However, modelling outcome validity may be restricted by inconsistent study approaches of PA assessment, e.g., movement occasion, that hamper the assessment of the actual dimension of physical activity in surveyed individuals.

Key messages

- Future health benefits due to PA-related interventions can be estimated by modelling changing probabilities of individuals to be exposed to different levels of physical activity over the life course
- The quality of modelled outcome estimates, due to increased activity, can considerably be further improved by "physical activity"-indicator standardisation

5.F. Pitch presentations: Health data collection and policy implications

Adult tobacco smoking in Turkey: policy implications and trends from the Global Adult Tobacco Survey

Hilal Ozcebe

T Erguder[1], H Ozcebe[2], N Bilir[2], B Keskinkılıç[3], S Polat[3], G Çulha[3], E Taştı[4], Y Erşahin[5], M Özmen[5], R San[6], J Morton[6], KM Palipudi[6], S Asma[6]
[1]WHO CO, Ankara, Turkey
[2]Institute of Public Health, Hacettepe University Ankara Turkey:
[3]Ministry of Health of Turkey
[4]Turkish Statistical Institute, Ankara, Turkey
[5]US Centers for Disease Control and Prevention, Atlanta, USA
Contact: hozcebe@hacettepe.edu.tr

Background

Tobacco smoking continues to be the leading preventable cause of morbidity and mortality worldwide because more than five million deaths each year are attributed to tobacco use which translates to more than 100 000 in Turkey. The Global Adult Tobacco Survey GATS assists countries to fulfill their obligations under the World Health Organization's (WHO) Framework Convention on Tobacco Control (FCTC) to generate comparable data within and across countries.

Methods

(GATS) is a global standard protocol for systematically monitoring adult tobacco use and tracking key tobacco control indicators. GATS is a household survey of persons 15 years of age and older. It was implemented by the Turkish Statistical Institute (TurkStat) under the coordination of the Ministry of Health, Hacettepe University Institute of Public Health and WHO Country Office to Turkey. In Turkey, GATS was first conducted in 2008 and repeated in 2012. Both the surveys used similar multistage stratified cluster sample designs to produce nationally representative data. There were 9,030 completed interviews in the 2008 survey with an overall response rate of 90.9%. There were 9,851 completed interviews in the 2012 survey with an overall response rate of 90.1%.

Results

Fewer Turkish citizens smoked cigarettes in 2012 as compared to 2008. The smoking prevalence significantly decreased among adults from 31.2% (16.0 million) in 2008 to 27.1% (14.8 million) in 2012. This represents a 13.4% relative decline of the smoking prevalence (13.5% decline for males; 13.7% decline for females). Exposure to secondhand smoke significantly declined. The largest drop in exposure to secondhand smoke occurred in restaurants (12.9% exposure rate in 2012 compared to 55.9% in 2008). Fewer non-smokers are being exposed to secondhand smoke in restaurants and workplaces, after implementation of the national smoke-free law in 2009 in restaurants, cafes, and bars.

Conclusions

This change resulted from the implementation of a comprehensive set of tobacco control policies and a national action plan. Continued and sustainable enforcement of the smoke-free law (which bans smoking in all enclosed public places), coupled with widespread public education, will protect citizens from the deadly harms of secondhand smoke. Increasing tobacco prices through tobacco taxes is among the most effective ways to reduce tobacco use.

Key messages

- Prevalence surveys can be conducted more frequently with larger samples to obtain better estimates as well as to monitor the trends
- A large number of Turkish citizens still smoke despite the remarkable decline in the smoking prevalence

Rapid Participatory Appraisal to Asses Community Health Needs in the City of Novi Sad, Serbia, 2014

Olja Niciforovic Surkovic

O Niciforovic Surkovic, D Jovisevic, E Ac Nikolic, S Susnjevic
Institute of Public Health of Vojvodina, Novi Sad, Serbia
Medical Faculty Novi Sad, University of Novi Sad, Serbia
Contact: olja.niciforovic@izjzv.org.rs

Background

In order to gain comprehensive vision for health and integrated ways of planning, the City of Novi Sad, as a member of WHO European Healthy Cities Network, intended to involve its citizens into the process of health planning. Therefore, we wanted to understand the representations that community members have about the factors that contribute to, and diminish the quality of life in the city, as well as the vision for the future of Novi Sad.

Methods

Qualitative method, Rapid participatory appraisal to asses community health needs (RPA), was applied. Out of 150 invited representatives of all relevant sectors of the city life, 62 filed the questionnaire which contained 6 open-ended questions. Participants were asked to write short essays about different aspects of the quality of life in the city. Thematic content analysis was applied.

Results

The City of Novi Sad is perceived, by its citizens, as a capital city of the region with a strong multicultural identity, which encountered multiple changes in the past 20 years in the population structure, cultural patterns and urban design. The main strengths of the City of Novi Sad, recognized by the participants, are the presence of all sector institutional networks, organized public spaces, rich cultural life and its geographical position. The main factors that diminish the quality of life, according to participants, are the uncoordinated urban planning, ill (mental) health and problems in organization of health care, traffic problems, high unemployment rate and low standard of living.

Conclusions

Results showed that the most important issues that affect health and the quality of life in the city are: urban development, economic crisis and its impact on health, social and cultural life, organization of health care and safety. These results, in the same time, placed a good base, together with all relevant quantitative health indicators, for creation of the City Health Profile and the City Health Plan.

Key messages

- Application of qualitative methods, such is RPA, gives an insight into a greater pallet of answers and higher understanding of the community appreciation and concerns about the life in the city
- Citizens' involvement in the process of health planning is a valuable contribution when determining health priorities and deciding which actions to take

Application of Lean Six Sigma methodology to a school based immunization project in Italy

Chiara Cadeddu

C Cadeddu[1], A Poscia[1], P Parente[1], F Kheiraoui[1], EM Frisicale[1], DI La Milia[1], J Ungari[1], FA Distefano[1], S Bartolucci[1], C Annona[2], V Bonanno[3], N Casuccio[4], AM D'Amici[5], C D'Angelo[4], A Fraioli[6], A Iacovelli[7]

[1]Institute of Public Health, Università Cattolica del Sacro Cuore, Roma - Italy
[2]Unit of Hygiene, Epidemiology and Public Health, ASM Matera, Italy
[3]Dept of Sciences for Health Promotion 'Giuseppe D'Alessandro', Università degli Studi di Palermo, Italy
4Unit of Public Health, Epidemiology and Preventive Medicine, ASP Palermo, Italy
5Unit of Preventive Medicine for Infancy and Adolescence Age, 4th District, LHU RMA, Italy
[6]Unit of Preventive Medicine for Infancy and Adolescence Age, 2nd District, LHU RMB, Italy
[7]Unit of Preventive Medicine for Infancy and Adolescence Age, 3rd District, LHU RMB, Italy
[8]Unit of Preventive Medicine for Infancy and Adolescence Age, LHU RMB, Italy
Contact: chiaracadeddu@yahoo.it

Background

Lean Six Sigma (LSS) is an improvement methodology that uses a systematic and reproducible approach to provide quality improvement. As teenagers are a difficult target for immunization campaign, we applied LSS to a primary immunization pilot programme in Italian secondary schools to improve health promotion awareness, especially for the Vaccine Preventable Diseases.

Methods

The 'VacciniAmo le scuole' (Let's vaccinate schools) project was performed in 4 Italian secondary schools in collaboration with the four in charge Local Health Units (LHUs). The LSS 5-stage system (DMAIC: Define, Measure, Analyse, Improve, Control) was applied as follows: D-drafting of the project charter, M-assembling of baseline data with translation of the problem into quantifiable terms using Critical-To-Quality characteristics (CTQs), A-identifying possible causal relationships between inputs and the CTQs, I-suggesting solutions to the problem, C- developing of control systems to ensure that improvements are maintained. The project started in September 2014 and complete analyses will be available in September 2015.

Results

After the definition of baseline coverages for the different settings (LHU, schools), the project charter identified the implementation of ''Vaccine Day'' (one or more educational and informative meetings at school about vaccinations for parents and children) and 'Vaccination Days' (one or more days in which each LHUs dedicate at least an ambulatory for the vaccination of the involved students). The project that involved more than 1600 students and parents, was very welcomed (students mean score=8.4, SD: 1.2; min 2- max 10). Critical steps are represented by the connection between LHUs and schools and the active involvement of parents.

Conclusions

The application of LSS methodology to our pilot project was beneficial in terms of improved knowledge and quality of educational approach to vaccination. First results suggest an improvement in vaccination rates to be confirmed in the following analyses.

Key messages

- LSS methodologies confirmed to have the potential to produce significant improvement also in health promotion programs
- Far-reaching implications could be seen if control systems are maintained and the project is extended in other Italian schools

Mental health of the Hungarian adult population

Karolina Kósa

K Kósa[1], K Tolvay[2], Zs Erdélyi[3], É Bíró[3]

[1]Institute of Behavioural Scienes, Faculty of Public Health
[2]Department of Psychiatry, Faculty of Medicine
[3]Institute of Preventive Medicine, Faculty of Public Health
University of Debrecen
Hungary
Contact: kosa.karolina@sph.unideb.hu

Background

The mental health of Hungarians fares unfavourably in international comparison. The Eurobarometer survey on mental health ranked the country 22nd according to the proportion of the population feeling happy all or most of the time; and 27th, that is, last, in terms of feeling full of life all or most of the time. However, the mental health strategy of the country puts a much greater emphasis on services for sufferers of mental disorders within the health care system than on primary prevention. In order to provide a snapshot of the mental health of the Hungarian population, a representative survey of the mental health of the adult population was carried out.

Methods

The survey was designed and data analysed by researchers of our university; data was collected by a polling company in a representative sample of 1200 persons of the adult population. A self-filling questionnaire was used to collect information on demographic data, socioeconomic status, social support, psychological stress, sense of coherence, depression, anxiety, and stress using validated scales.

Results

Response rate considering all subscales separately was at least 93,5%. 41% of respondents were male, mean age was 50,8 years (SD: 16,1 years). Distribution of the respondents by permanent residence, age and sex largely reflected that of the adult population of the country. According to the instrument used to screen pathological distress, 11.5% of the respondents struggled with it. This was 1.9% higher than in a previous survey of 2003 that used the same scale ($p = 0.048$). The proportion of severely depressed was 7.2%; and 11.8% struggled with severe anxiety. No sex difference was found in the indicators of mental health but all of them showed a strong gradient improving with increasing educational levels.

Conclusions

The survey revealed the quite unfavourable mental health of Hungarians providing proof for urgently needed health promoting and educational policy measures at the population level.

Key messages

- Mental health of the Hungarian population in terms of depression, anxiety, and pathological distress shows a strong relationship to educational level
- Population mental health measures should be distinguished from measures aimed at sufferers of mental disorders when designing national strategies

Monitoring immigrants' health in Italy within the network of the Metropolitan Longitudinal Studies

Giuseppe Costa

*N Caranci[1], B Pacelli[1], C Di Girolamo[1], N Zengarini[2], T Spadea[2], L Grisotto[3], G Terni[3], A Biggeri[3], S Broccoli[4,5], P Ballotari[4,5], P Giorgi Rossi[4,5], N Agabiti[6], L Cacciani[6], AM Bargagli[6], C Canova[7], L Cestari[7], G Costanzo[8], A Petrelli[8], G Costa[2], INMP working group**

[1]Regional Agency for Health and Social Care, Emilia-Romagna Region, Bologna, Italy
[2]Epidemiology Unit, ASL TO3 Piedmont Region, Grugliasco (TO), Italy
[3]Department of Statistics, University of Florence, Florence, Italy
[4]Epidemiology Unit, Azienda Unità Sanitaria Locale, Reggio Emilia, Italy
[5]IRCCS Arcispedale Santa Maria Nuova, Reggio Emilia, Italy
[6]Department of Epidemiology, Lazio Regional Health Service, Rome, Italy
[7]Department of Molecular Medicine University of Padova, Padova, Italy
[8]National Institute for Health, Migration and Poverty (INMP), Rome, Italy
*INMP working group: A Petrelli, G Costanzo, C Mirisola, T Spadea, N Zengarini, L Mondo, P Carnà, T Dalla Zuanna, G Costa, B Pacelli, C Di Girolamo, D Furio, N Caranci, S Broccoli, L Bonvicini, P Ballotari, P Giorgi Rossi, L Grisotto, G Terni, A Biggeri, L Cacciani, A Maria Bargagli, N Agabiti, M Davoli, C Canova, L Cestari, M Zanella, L Simonato, A Cernigliaro, S Scondotto
Contact: ncaranci@regione.emilia-romagna.it

Background

In the last 15 years foreign residents rapidly increased in Italy (1.3 in 2001 to 4.9 million in 2014). Previous studies assessed only in part the immigrants' health; they were mainly cross-sectional. A multicenter cohort study on socio-demographic determinants of health has been set up by the Italian network of metropolitan longitudinal studies (MLSs). Here the study design and the preliminary results on immigrants' mortality risk are presented to highlight study potentiality.

Methods

The MLSs network includes the cohorts of residents in Rome, Turin, Venice, Reggio Emilia, and Florence enrolled on 21/10/2001. Cohorts in Turin and Reggio Emilia allowed for future entries (open cohort). Data from the registry office, population census, cause of death registry have been linked. Administrative health data can be added to the integrated system. Cohorts of residents have been followed up until 31/12/2012. Incidence rate ratios (IRRs) for 1–64 year-olds were estimated by Poisson regression (adjusted for age, gender and calendar year).

Results

The study population includes 3,646,774 subjects (2.5% immigrant). Compared to Italians, immigrants had a lower mortality, with IRRs from 0.53 (95%CI: 0.28-0.98) in Florence to 0.75 (95%CI: 0.55-1.03) in Reggio Emilia and with heterogeneities among gender and cities.

The open cohorts in Turin and Reggio Emilia include much more immigrant people (16.7%) and person-years.

Conclusion

Study findings are consistent with evidence showing that immigrants residing in Italy have generally lower mortality than Italians. Explanations may be related to the supposed good health status of migrant populations, or may be spuriously due to the "salmon effect".

The MLSs network will allow, also through cohorts opening, to study cause-specific mortality, the changing dynamics of the populations and their effect on health, to characterize heterogeneity by macro-areas of origin, and further analyses on length of stay and other socio-economic factors.

Key messages

- The MLSs network allows for the monitoring of socio-demographic determinants in Italy by observing longitudinally millions of residents
- Healthy migrant effect seems still to act on mortality

Defensive medicine in Europe: which solutions?

Vincenzo Di Gregorio

V Di Gregorio, AM Ferriero, ML Specchia, S Capizzi, G Damiani, W Ricciardi
Department of Public Health, Università Cattolica del Sacro Cuore, Rome, Italy
Contact: vincenzodigregorio@yahoo.com

Background

Defensive medicine has recently escalated as a problem of progressively increasing magnitude and concern. The practice of defensive medicine is mainly associated to the rising number of medical malpractice lawsuits. This study was aimed to perform a literature review to analyze the economic burden of defensive medicine in Italy and to identify which solutions, adopted in Europe, have proven effective in reducing the phenomenon.

Methods

A literature review was performed, during the period November 2014-April 2015, by consulting the main electronic databases, institutional websites and grey literature. Specific key words and MeSH terms were used.

Results

In Italy defensive medicine costs 10 billion/year (10.5% of GDP) and it represents the first category of healthcare wastes (26% of the total). In Europe the number of litigations for medical malpractice has increased significantly over the last decade; this increase ranges from more 50% in Britain, Scandinavia, the Baltic countries and Eastern Europe, to more 200–500% in Germany, Italy, the Iberian and Mediterranean Area countries. In countries where a no-fault system or a system of conflict mediation is in force, most of the litigations are disputed out of the court of law: the claims resolved in court are 0.1% in Sweden, 0.3% in Finland, 0.5% in Denmark and 4% in Britain compared to 100% of cases resolved through judicial in Portugal and the Netherlands, 98% in Malta, 86% in Italy and 60% in France.

Conclusions

Defensive medicine is consequence of several factors, particularly the increased risks in healthcare, the impact of social and cultural changes and some facilitating aspects of the legal system. Various solutions have been adopted internationally with the aim of reducing defensive medical acts. The use of mediation to favour dispute settlements out of the court of law and the adoption of no-fault systems have turned out to be the most effective approaches.

Key messages

- The medicine defensive acts are widespread among physician and determine an increase of healthcare costs and a reduction of healthcare quality
- The adoption of no-fault systems and extra- judicial mediation are shown to be the most effective strategies to reduce the number of litigation in courts of law, with consequent economic savings

5.G. Pitch presentations: Evidence from child and adolescent public health

Teenage men & unintended pregnancy: acceptability of a film-based prevention program for adolescents

Aine Aventin

A Aventin[1], *M Lohan*[1], *C Kelly*[1], *L Maguire*[2]
[1]School of Nursing & Midwifery, Queen's University Belfast, Northern Ireland
[2]Centre for Public Health, Queen's University Belfast, Northern Ireland
Contact: a.aventin@qub.ac.uk

Background

The World Health Organisation, amongst others, recognises that teenage men have a vital yet neglected role in reducing adolescent pregnancy and that there is a need for robustly evaluated interventions designed especially for them. This study evaluates an innovative programme entitled 'If I were Jack', which uses an interactive film to help teenagers 'pre-experience' and plan to avoid unintended pregnancy. The programme is being delivered in schools in Ireland and Australia, although the current evaluation relates to the UK.

Methods

The Jack Trial is a National Institute for Health Research (NIHR) funded cluster randomised feasibility trial recruiting over 800 adolescents, teachers and parents from 8 post-primary schools in Northern Ireland. A detailed process evaluation, embedded within the trial, used qualitative methods to explore the use and acceptability of the intervention to schools, teachers, pupils and parents.

Results

Uptake and engagement with the classroom-based components was high, particularly in more socially deprived and non-denominational schools. Aside from suggestions for minor adjustments to content and components, triangulated data indicated that it was enjoyable, beneficial, and compatible with their needs, ethos and usual ways of working. The main challenge was engaging parents who reported barriers such as the timing, a perceived lack of need for such information, and embarrassment.

Conclusions

Findings suggest that film-based interventions of this type are successful in engaging adolescent men in thinking about sexual health risks and deserve further empirical investigation to determine their effectiveness in improving sexual health outcomes.

Key messages

- Reports the use and acceptability of a novel intervention which has wider public health applications and international appeal
- Responds to global calls to address the role of men in reducing unintended pregnancies by evaluating the acceptability of an innovative gender-specific intervention

Children's Rehabilitation Care Study: An evaluation of the provision with medical equipment

Birgit Babitsch

F Röwekamp[1], *T Rohde*[2], *T Michael*[3], *M Unrath*[1], *B Babitsch*[1]
[1]Department of New Public Health, School of Human Sciences, Osnabrück University, Osnabrück, Germany
[2]Department of New Public Health, School of Human Sciences, Osnabrück University, Osnabrück, Germany
[3]Center for Social Pediatrics, Charité University Hospital Berlin, Berlin, Germany
Contact: bbabitsch@uni-osnabrueck.de

Background

Providing a child with medical equipment is a complex process given the fast changing needs of the child and the necessary coordination of several players such as cost bearers, medical professionals, and parents. In Germany, the organizational processes are very heterogeneous and may impede successful provision with assistive equipment. The aim of the Children's Rehabilitation Care Study is to evaluate both adequacy and quality of the provision with medical equipment.

Methods

This study uses a multi-method approach. A standardized questionnaire was developed based on 57 guided interviews with experts from the fields of medical services, health insurances, service providers, schools and kindergartens, parents, and stakeholders from other fields. The questionnaire (n = 1,584) was then distributed among member families of the public health insurance TK that had received medical equipment for their child in a defined time period.

Results

748 (47.2%) families participated. The most important personal aims connected to the provision with medical equipment were enabling participation and facilitating daily living. The majority of the parents were very satisfied (36.1%) or satisfied (51.7%) with the latest provision of medical equipment their child received. The most important need for change refers to the duration of the care process and especially to the time period until the equipment is granted by the insurance.

Conclusions

Satisfaction with the latest provision of medical equipment was fairly high. This is different from the results of the expert interviews, where a lot of problematic aspects in the provision of care were identified (e.g. insufficient communication and information). A possible explanation lies in the special selection of families in this sample, all serviced by one health insurance (TK). Functionality of the assistive equipment seems to be its most important feature. The duration of the service provision seems to offer room for improvements.

Key messages

- The parents were generally satisfied with the provision of medical equipment for their children
- Functionality and prompt provision of the equipment are core needs that are only partially fulfilled

Association between perceived peer smoking and personal smoking among adolescents in Denmark

Christiane Stock

BM Rasmussen, *L Vallentin-Holbech*, *C Stock*
Unit for Health Promotion Research, University of Southern Denmark, Esbjerg, Denmark
Contact: cstock@health.sdu.dk

Background

Existing research on social norm theory suggests that adolescents often overestimate smoking behaviour among peers, which leads to higher likelihood of personal use. The purpose of this research is to investigate misperception of peer smoking among 8th and 9th grade pupils in Denmark and to study associations between personal use and misperception.

Methods

Data come from the baseline survey of a cluster randomized controlled trial 'Det gode liv mellem de unge' on smoking and other drug use and perceived peer use conducted among 8th and 9th graders in the Region of Southern Denmark. Pupils were asked about own behaviour, attitude towards smoking and other drugs and perceived peer behaviour and norms. The variables explored are 'ever tried smoking' and 'perceived percentage of peers who have ever tried to smoke'. Analyses are done on preliminary data (N = 466). Personal smoking and socio-demographic factors are explored as predictors for perceived peer smoking behaviour.

Results

A proportion of 16.7 % of pupils have ever tried to smoke, while the mean for the perceived amount was 32.0 %. Both pupils who have tried smoking (N = 71) and who never have tried smoking (n = 373) estimated the smoking prevalence to be higher than reality with 57.9 % (SD 25.2) and 27.0 % (SD 27.2), respectively, with a significant difference in stated estimates (p-value <0,001). Grade, school and gender are associated with perceived peer smoking prevalence. After adjusting for aforementioned, robust multivariate linear regressions showed a significant difference in the estimates of peer smoking prevalence between pupils who have tried and never tried to smoke of 18.4 percentage points (95% CI [13.1; 23.7]).

Conclusion

Overestimation of peer smoking experience appears to be positively associated with personal smoking experience.

Key message

- Correcting potential misperceptions of peer behaviour on smoking using social norms messages could be an effective preventive approach

Determinants of adherence to the Wrap around care approach in child and family services

Paul Kocken

N Pannebakker, M Fleuren, P Kocken
Child Health Department, TNO, Leiden, The Netherlands
Contact: paul.kocken@tno.nl

Background

Shifting the focus to demand driven care with an emphasis on self-management, involving the family and its social network in the care decision making process, is considered a solution for multi-morbidity problems and supply driven care that families meet. Wrap around care (WAC) is a care coordination method aimed at multi problem families receiving care from child and family services. In the Netherlands two different ways of implementing WAC were followed in two distinct geographical regions: a network approach (NA) and team approach (TA).

Methods

A cross-sectional study of self-reported adherence to core components of WAC i.e. activate family members and social network, integrate the care provider network, and asses, plan and evaluate the care process, and determinants of adherence among 275 care providers using a digital questionnaire. Multiple regression analyses were conducted to assess the associations between adherence and its determinants.

Results

Positive associations were found between the following determinants and adherence to the core components of WAC: self-efficacy of the care providers, their attitude towards WAC and the way WAC was organized (the NA scoring favorable over TA). Self- efficacy and organization of WAC showed a significant interaction effect: the positive association between self-efficacy and adherence was significantly stronger for NA than for TA.

Conclusions

Improvement of self-efficacy and attitudes of child and family care providers toward the use of WAC principles is advised. Instruction and learning on the job are implemented in the team based approach of WAC, which is now introduced throughout the Netherlands.

Key message

- The complex needs of multi-problem families are met more effectively when the self-efficacy and attitudes toward WAC of child and family care providers in interdisciplinary teams are improved

Leisure-time as a health-promoting setting –experiences from youth-centers in Sweden

Susanna Geidne

S Geidne, I Fredriksson, C Eriksson
Faculty of Medicine and Health, School of Health and Medical Sciences, Örebro, Sweden
Contact: susanna.geidne@oru.se

Background

Leisure-time is an important part of young people's lives. Despite this, leisure-time settings have hitherto had a minor role in setting-based health-promotion initiatives. Improving adolescents' quality of leisure-time activities can reduce social differences in health. Youth centers can therefore be good settings for promoting health. However, young people with immigrant backgrounds participate less in organized leisure-time activities. The aim of the study is to increase awareness of the importance of young people's leisure-time activities in a health promotion perspective. Further questions like who participate and why, what they gain, and what particular strategies the different youth-centers use in their everyday work will be presented.

Methods

In this practice-based longitudinal study data were collected 2012–2014 at two youth-centers in multicultural, socially deprived suburbs using surveys with 12–16 year old adolescents (n = 207). Individual interviews with staff (n = 7) and focus-groups interviews with adolescents (6 groups, 50 % girls). Moreover individual interviews (n = 3) were made with cooperation partners in the neighborhoods. Quantitative, qualitative and mixed methods were used for analysis.

Results

Most of the participants are second generation immigrants. They feel healthy, enjoy school, and feel quite safe in their neighborhoods. They participate in youth-centers to do fun and interesting activities, to see friends as well as to have leaders that care about them. If factors like support from youth-center leaders, influence, gender equality or alcohol and drug rules are important for making adolescents use less alcohol or feel better will also be revealed. Strategies for recruiting youth to youth-centers are central to succeeding.

Conclusions

Youth centers can be health-promoting settings when their strategies include some important factors, both in theory and in daily practice.

Key messages

- Leisure-time activities are underestimated health-promoting settings
- Youth-centers can be a health-promoting setting

First evaluation on satisfaction of the KiDS project in India and Brazil (phase I: 2013–2014)

Daniela Chinnici

D Chinnici[1], D Chaney[1], M Germe[2]on behalf of KiDS Scientific Committee
[1]IDF, P&P, Brussels, Belgium
[2]SANOFI, Global Diabetes Division, Paris, France
Contact: daniela.chinnici@idf.org

Background

The number of children with Type 1 (T1DM) and Type 2 (T2DM) diabetes is increasing worldwide. Evidence has highlighted lack of knowledge within school about diabetes leads to poor support, isolation, stigma and discrimination. Limited programs in school settings exist to answer these global health challenges.

Objectives

The KiDs and Diabetes in schools (KiDS) project aims to foster a supportive school environment that creates a better understanding of diabetes and support children with this condition. The project was piloted in India and Brazil due to increasing diabetes incidence and identified poor knowledge of T1DM children. An international multi-disciplinary technical advisory committee (TAC) was convened to develop a Global Diabetes Information Pack (GDIP). The GDIP was culturally and contextually adapted, pre-tested and tailored for use by teachers, students (6-14 years) and parents in both countries. Trainings were conducted post GDIP development within 6 months with qualitative and quantitative feedback received from first program assessments in both countries.

Results

From April to December 2014, 30 workshop trainings for teachers, students and parents (15 schools/country) were conducted. 1,393 school staff and 38,000 students were trained in both countries. Testimonials collected provided excellent feedback on trainings and the pack. 90% of the participant teachers were satisfied with the training in India. Drawings, cartoons, information offered, training content were the most satisfactory features. The GDIP available free of charge in 8 languages reached over 6,000 downloads worldwide split by students (31.5%), health professionals (21%), parents of children with diabetes (15.3%), staff (8%) and others (11.5%).

Conclusions

The results of KiDS project initial phase and increasing number of GDIP downloads confirm the need for a comprehensive diabetes education program in schools. Use of an international TAC is crucial in development of a GDIP.

Key messages

- School environment and policies play an important role in enabling T1DM children to manage their condition and address healthy nutrition and physical activities important for prevention of T2DM
- A multi-disciplinary advisory committee is crucial for success of a GDIP intervention

Contribution to promote oral health in children with the exhibition ''Take care of your teeth''

Anna Loste

A Loste, P Batlle
Dipsalut, Public Health Agency within the regional government of the Diputació de Girona, Girona, Spain
Contact: amorales@dipsalut.cat

Background

According to the latest information available from the Catalonia Health Survey, only 23% of school children between three and 14 years from Girona follow the guidelines of the World Dental Federation.

Objective

Dipsalut offers educational resources with the aim to convey the importance of oral health among school children aged five to nine. The exhibition ''Take care of your teeth'' helps families and teachers in the promotion of oral health among children.

Method

A descriptive cross-sectional study was designed. The target of study was the children who took part in the exhibition ''Take care of your teeth'' between April and November 2012 and their teachers and families. A questionnaire for the children and families and a questionnaire for the teachers who participated were used in order to obtain information about the exhibition, the follow-up and the support material.

Results

3,570 questionnaires answered by the families and 226 questionnaires by the teachers were studied. Regarding the families, most of them deemed oral health important (4.45 out of 5), received support material (92.5%), found it useful (89.7%) and knew how to use it (81.7%). Regarding the children, 49.5% of the children who received support material considered oral health important and 40.4% of children who did not receive support material deemed it important.

In regard to the teachers, 100% think that the exhibition ''Take care of your teeth'' is a good resource for dealing with oral health at school, but only 24.8% use it continuously, and the percentage is greater at small-sized schools (32.3% as opposed to 19.2%).

Conclusions

In conclusion, the exhibition has had high coverage (76.2%) in the municipalities of the region. Most families think that the material provided at the exhibition helped them deal with oral health at home and it also seems to have had an impact on the awareness of children concerning this issue. The teachers believe that the exhibition is a good resource.

Key messages

- It seems the exhibition ''Take care of your teeth'' has had an impact on the awareness of children concerning their oral health
- Families and teachers think that the material provided at the exhibition helped them deal with oral health

5.H. Pitch presentations: Health impacts of economic crisis

Is austerity contributing to rising mortality in England? A cross-local area analysis, 2007–2012

Rachel Loopstra

R Loopstra, D Stuckler
Department of Sociology, University of Oxford, Oxford, UK
Contact: rachel.loopstra@sociology.ox.ac.uk

Background

Over the past 30 years, mortality rates among the older ages have been steadily declining in England. In 2012, there was a sharp reversal, with mortality rising by 5 deaths and almost 10 deaths per 1000 pensioners over the age of 85 among men and women, respectively. This rise has been attributed to an extended flu season, yet significant variation across local authorities was observed. It also coincided with changes to cuts to local authority budgets, which include social care support for the elderly, and cuts to income support for low-income pensioners in the form of pension credit. In this study, we examine how changes in mortality rates among pensioners over the age of 85 relate to changes in welfare support across local authorities in England over 2007 to 2012.

Methods

We compiled data from official government statistics on registered deaths, spending on local government services, spending on pension credits, pension credit claimant rates, and deprivation levels across 324 lower tier local authorities in England. Linear regression models, clustering for local authority and using robust standard errors, were used to examine the percent change in mortality rates in relation to baseline deprivation levels, and subsequently, changes in local authority spending and spending on benefits for low-income seniors.

Results

For every one-unit increase in rank of deprivation, mortality rates among pensioners aged 85+ rose by 0.0045 percent (95%

CI: 0.000 to 0.009). Independent of this poverty measure, more people claiming pension credit benefit was associated with declines in mortality, suggesting a protective effect of benefit coverage in low-income communities. However, for every one percent decline in spending on pension credits, after controlling for levels of need, mortality rates rose by 0.63% (95% CI: 0.28 to 0.98). While there was no evidence that reductions in local authority spending were related to mortality, reductions in social care spending specifically, were associated with a non-significant increase in mortality (0.05%, 95% CI: −0.026-0.13).

Conclusions

This preliminary analysis suggests that reduced welfare protection and care for older age pensioners are related to rising mortality. Further analyses will explore cause-specific mortality to elucidate potential mechanisms.

Key messages

- Mortality rates among pensioners aged 85 and over rose significantly in 2012 in England
- Reductions in spending on welfare support for low income pensioners may have contributed to the rise in mortality observed

Poverty and health inequalities in Province of Vojvodina, Serbia

Vesna Mijatovic Jovanovic

V Mijatovic Jovanovic[1], S Ukropina[2], S Cankovic[1], S Susnjevic[1], I Radic[3]
[1]Center for Health Care Analysis, Planning and Organization, Institute of Public Health of Vojvodina, Novi Sad, Serbia, Medical faculty of University of Novi Sad, Serbia
[2]Department for Health Education, Institute of Public Health of Vojvodina, Novi Sad, Serbia, Medical faculty of University of Novi Sad, Serbia
[3]Center for Medical Informatics and Biostatistics, Institute of Public Health of Vojvodina, Novi Sad, Serbia, Medical faculty of University of Novi Sad, Novi Sad, Serbia
Contact: vesnamjov@gmail.com

Background

Among the aims of the European policy 'Health 2020' the need for insight into determinants of health and health inequalities is highlighted, as well as finding ways to reduce them.

Methods

The research represents a cross-sectional study of the representative sample of adult population in Vojvodina, which was a part of ''National Health Survey in Serbia, 2013''. The study involved 3550 respondents aged 15 years and over (55.2% female and 44.8% male). Research instrument was a specially designed questionnaire. Socio-economic status was assesed through DHS Wealth Index (WI) according to which the respondents were divided into 5 categories (quintiles): from the first quintile-the poorest to the fifth quintile - the richest. Logistic regression model was used to assess the predictive effects of various socio-demographic factors on health.

Results

According to WI, 50.0% of the households in Vojvodina were from the category of the poor or the poorest. The percentage of the poor increased from 10.2% in the aged 15–24 to 29.9% among 65+. Good or very good health was reported by 55% of adults, while 17.5% perceived there health as poor or very poor, more women (20.0%) than men (14.4%). The number of respondents with poor or very poor health increased significantly with the decrease of WI, from 8.7% among the richest to 25.7% among the poorest. Significantly more likely to be of poor health (compared to the reference category 'very good and good') were respondents who are older then 65 years and older (OR = 28.52; 95% CI = 20.09-40.50), respondents with lower WI and particularly those who belonged to the first quintile (OR = 2.42; 95% CI = 1.43-3.53), respondents with the lowest level of education (OR = 2.25; 95% CI = 1.51-3.63), and among females (OR = 1.67; 95% CI = 1.35-2.06).

Conclusions

The research shows that there are health inequalities between socio-economic categories, which demand a multi-disciplinary approach to problem solving, at local as well as at national level.

Key messages

- Social determinants of health are leading causes for health inequalities which are socially unacceptable and therefore require development of multidisciplinary strategies
- Providing a valid data about health inequalities is necessary for undertaking an adequate health policy measures

Suicide, economic crisis and material deprivation in Portugal in the last 20 years

Claudia Costa

C Costa[1], A Loureiro[1], P Santana[2], G Cardoso[3], J Ferrão[4]
[1]Centre of Studies on Geography and Spatial Planning (CEGOT), University of Coimbra, Coimbra, Portugal
[2]Department of Geography, Centre of Studies on Geography and Spatial Planning (CEGOT), University of Coimbra, Coimbra, Portugal
[3]Faculty of Medical Sciences - New University of Lisbon
[4]Institute of Social Sciences - University of Lisbon
Contact: claudiampcosta@gmail.com

Background

Suicidal behaviour can be influenced by the characteristics of places of residence, considered as specific socio-environmental contexts, which tend to deteriorate in periods of economic crisis. Traditionally Portugal presents low rates of suicide. Nevertheless, since 2008 the country has been facing severe economic constraints and austerity policies that may contribute to the increase in suicide mortality. This study aims at analysing whether there is a statistical association between suicide mortality and the characteristics of places of residence (rurality and material deprivation), before and during the economic crisis.

Methods

A cross-sectional ecological study was carried out using a hierarchical Bayesian spatial model. We estimated smoothed Standardized Mortality Ratios, relative risks and 95% credible intervals for suicide mortality related to the rurality and material deprivation, separately for men and women.

Results

We found that: 1) the culture-based North/South pattern of suicidal behaviour has faded away, while the socioeconomic urban/rural division has become more pronounced; 2) suicide is associated with higher levels of rurality and material deprivation for men but not necessarily for women; 3) recent shifts in suicidal trends may result of the current period of crisis.

Conclusions

In this context, strategies targeting rural areas and social, economic and spatial planning policies that address area deprivation and promote human concentration may have important implications for tackling higher suicide rates in the most disadvantaged areas of Portugal. However, this goal will only be achieved if contextual diversity is taken into account when designing public policies that impact on the population's mental health.

Key messages

- Deprivation has a stronger effect as a determinant of suicide mortality than unemployment
- Suicide is associated with lower population density and higher material deprivation for men but not for women

Health system governance in times of economic crisis: A growing relevance for EU policy and action?

Maria Eva Foldes

ME Foldes
Institute for European Integration Research, University of Vienna, Vienna, Austria
Contact: evafoldes@yahoo.com

Background

Although health systems constitute a core national competence safeguarded as such by the Member States, the current economic crisis has triggered the extension of EU economic surveillance over this field. The related debate focuses on the added value of EU action to support health systems in coping with crisis challenges versus the constraints imposed by stricter EU fiscal governance on national health policymakers.

Methods

The research analyses the changes in EU health policy triggered by the economic crisis as an independent variable impinging the EU's policy process and output. It explores how the crisis influences the decision-making process and the content of EU policy and action pertaining to human health. It also discusses the consequences of crisis-induced developments in EU policy for the health systems of Member States. Towards this end, it examines the changes in the output of EU institutions in light of theories of institutional change (Mahoney and Thelen, 2010) and policy learning (Hall, 1993).

Results

Extension of EU surveillance to health system budgets and reforms involved a change in both the instruments and the settings of EU health policy. In Hall's conception of different 'orders of change' this amounts to a second order change. In Mahoney and Thelen's framework of institutional change it amounts to a layering process. While the competence distribution between the EU and its Member States in health policy has remained formally unchanged, new rules and instruments have been applied alongside the old ones.

Conclusions

The strengthened role of economic actors in the management of the crisis has facilitated EU level surveillance of national health budgets and reforms, possibly paving the way for a further increase in EU involvement. Although Member States are unlikely to give up their formal competence in health system organization, the crisis has increased the role of the European Commission in overseeing their actions in this field.

Key messages

- Although health systems constitute a core national competence safeguarded as such by the Member States, the current economic crisis has triggered extension of EU economic surveillance over this field
- The economic crisis might pave the way for further increase in EU involvement in health system governance

The impact of the economic crisis on mental health in Italy: results from a large-scale survey

Anna Odone

A Odone[1], *A Migliardi*[2], *T Landriscina*[2], *L Gargiulo*[2], *G Costa*[2,3]
[1]Department of Biomedical, Biotechnological and Translational Sciences, University of Parma, Parma, Italy
[2]Epidemiology Unit, ASL TO3, Regione Piemonte, Grugliasco, Italy
[3]Department of Public Health, University of Torino, Torino, Italy
Contact: anna.odone@mail.harvard.edu

Background

Economic crises pose major threats to health, including mental health. Data on the mental health impact of the ongoing economic downturn is available from selected countries including Spain, Greece and England. There is some evidence that it has negatively affected mental health outcomes, namely: depression, anxiety, alcohol-related disorders and suicides. No data are available for Italy, one of the European countries most affected by the recession

Methods

Aim of the study was to explore – for the first time in Italy - the impact of the current economic downturn on mental health. We compared data of the two Italian health interview surveys conducted by the National Institute of Statistics on a representative sample in 2005 and 2013, respectively before and after the onset of the economic crisis. We considered as primary outcome the Mental Component Summary (MCS) derived from the SF-12 and its composing scale Mental Health Index (MHI). Analysis were performed stratified by gender and adjusted by age and main social determinants

Results

120,000 subjects were included in both surveys. Overall MCS decreased by 0.7% from 2005 to 2013; MHI by 1.6%. The age-standardized decrease in MCS and MHI was larger in young males (MCS:-1.2%, MHI:-2.6%), in age the group 45–54 (MCS:-1.3%, MHI:-2.7%), in the foreign population (MCS:-1.7%, MHI:-4.7%) and in subject living in the Southern regions of Italy. The well-known disadvantage in mental health among socially vulnerable groups did not change between 2005 and 2013

Conclusions

Data from a large-scale study suggests a negative impact of the recent economic crisis on mental health in Italy. Two main pathways are the increasing unemployment risk that largely involved mostly the male adult population and the widening of the socially vulnerable groups that show higher risk for mental health. More research is needed to further explore these pathways and their implications for prevention and control strategies

Key messages

- Data from two consecutive large-scale study suggests a negative impact of the recent economic crisis on mental health in Italy
- Increasing unemployment and the widening of inequality are the main pathways of the impact of recession on mental health: this should inform the planning of targeted prevention and control strategies

Economic stress and condescending treatment in childhood and adult self-rated health in Sweden

Anu Molarius

A Molarius[1,2], *HG Eriksson*[3], *F Granström*[3,4]
[1]Competence Centre for Health, Västmanland County Council, Västerås, Sweden
[2]Karlstad University, Sweden
[3]Centre for Clinical Research Sörmland, Uppsala University, Eskilstuna, Sweden
4 Division of Community Medicine, Department of Medical and Health Sciences, Linköping University, Linköping, Sweden
Contact: anu.molarius@ltv.se

Background

During the last decades, the association between childhood disadvantage and adult health, a life course perspective, has been increasingly acknowledged. Because, even today, 12% of the children in Sweden live in poverty and many children have adverse experiences, e.g. of being bullied, it is important to study long term effects of childhood material and psychosocial circumstances. This study examined the associations between economic stress and condescending treatment in childhood and self-rated health in adulthood.

Methods

The study is based on 32,548 persons who responded to a postal survey questionnaire sent to a random sample of men and women aged 16–84 years in 2012. The area covers 39 municipalities in mid-Sweden and the overall response rate was 51%. The associations between childhood circumstances and adult self-rated health were assessed using logistic regression models, adjusting for age, economic stress in adulthood, condescending treatment in adulthood, as well as socioeconomic status and other known material, behavioural and psychosocial risk factors.

Results

In total, 38% of men and women reported economic stress in their family during childhood. 40% of men and 43% of women indicated that they had been treated in a condescending manner e.g. at school or in the family during childhood. Both economic stress in childhood and condescending treatment in childhood were strongly associated with self-rated health in adulthood. This applied both to men and women. The associations were attenuated, but still statistically significant, when adjusted for adulthood circumstances and other risk factors.

Conclusion

Both economic stress in childhood and condescending treatment in childhood had independent associations with self-rated health in adulthood. The results underline the importance of taking into account both material and psychosocial circumstances over a whole life course when developing public health measures.

Key messages

- About four in ten in the adult population reported economic stress in childhood, and a similar proportion reported condescending treatment in childhood
- These childhood circumstances had independent associations with self-rated health in adulthood

5.I. Pitch presentations: Infectious disease

Iterative exchange between scientific and local evidence in HIV prevention, Vienna (Austria)

Frank Michael Amort

FM Amort, C Marbler, G Käfer
FH JOANNEUM University of Applied Sciences, Bad Gleichenberg, Austria
Contact: frank.amort@gmail.com

Problem

In Austria annually approximately 500 new HIV cases are diagnosed, half of them in men who have sex with men (MSM). Chemsex, the impact of recreational drug use on sexual behaviour is recently discussed in various European studies. Aids Hilfe Vienna has been implementing since 2014 a community-based campaign in Vienna aiming to sensitize MSM for the topic. FH JOANNEUM, as academic institution, offered a multilevel scientific support. In iterative communication, scientific knowledge and community experience has been exchanged aiming to combine participatory generated evidence and scientific evidence.

Results

In the initial phase, a peer review evaluating the proposed project management involving 15 experts from 6 countries has been conducted online. Two modified reviews were conducted analysing the derived practice recommendations in published studies from other European countries and identifying best-practice reference projects. Furthermore, an online survey analysing attitudes and behaviour in relation to recreational drug use and sexual behaviour with 345 MSM as participants was conducted. In parallel, the community-based project was developed and implemented step by step involving participatory community-mapping-methods and active community involvement in decision-making processes.

The scientifically generated evidence had a clear impact on the project management; however, its meaning and interpretation differed in several occasions between the lay experts and the scientific team.

Lessons learnt:

Evidence based practice prevention or health promotion isn't a contradiction to participatory processes. Triangulation of scientifically generated evidence and participative generated evidence need formal structures and sufficient time resources in order to allow a joint understanding of the information and recommendations.

Key message

- Evidence based practice prevention or health promotion isn't a contradiction to participatory processes

A regional approach to Antimicrobial Stewardship: the Friuli Venezia Giulia program

Giovanni Cattani

G Cattani[1], L Arnoldo[1], F Pea[2], M Bassetti[3], R Luzzati[4], V Moretti[5], F Silvestri[6], L Canciani[7], M Busetti[8], G Basaglia[9] and F Fontana[10], A Camporese[11], C Scarparo[12], S Brusaferro[1], Friuli Venezia Giulia regional risk manager group
[1]Department of Medical and Biological Sciences, University of Udine, Italy
2Institute of Clinical Pharmacology, Santa Maria della Misericordia University Teaching Hospital of Udine, Italy
[3]Clinical of Infectious Diseases, Santa Maria della Misericordia University Teaching Hospital of Udine, Italy
[4]Clinical of Infectious Diseases, University of Trieste, Italy
[5]S. Daniele Hospital, AAS4, Friuli Venezia Giulia, Italy
[6]Latisana Hospital, AAS2, Friuli Venezia Giulia, Italy
[7]AAS4, Friuli Venezia Giulia, Italy
[8]Microbiology Laboratory, Azienda Ospedaliero-Universitaria ''Ospedali Riuniti'', Trieste, Italy
[9]Microbiology Laboratory, Centro di Riferimento Oncologico, Aviano, Italy
[10]Microbiology Laboratory, Monfalcone Hospital, AAS2, Friuli Venezia Giulia, Italy
[11]Microbiology Laboratory, Pordenone Hospital, AAS5, Friuli Venezia Giulia, Italy
[12]Microbiology Laboratory, Santa Maria della Misericordia University Teaching Hospital of Udine, Italy
Contact: giovanni.cattani@uniud.it

Issue/Problem

Antimicrobial resistance (AMR) and antibiotic misuse represent a public health emergency worldwide. An high rate of antibiotic prescription in the 14 acute hospitals of the Friuli Venezia Giulia (FVG) Regional Health System (RHS) emerged from ECDC Point Prevalence Survey (PPS) in 2013.

Description of the problem

ECDC PPS showed an overall prevalence of 39% in antibiotic exposure amongst hospitalized patients. The evaluation of the state of the art amongst and within FVG acute hospitals highlighted great variability in the treatment of the most common infectious diseases (ID). Differences in availability of local data on AMR and of internal reference persons for antibiotic management existed.

Results

The regional antimicrobial stewardship (AS) program is structured into the following steps: 1) inclusion of the program as a measurable action in the annual plans of the RHS and regional hospitals since 2014; 2) a regional coordination with experts from each hospital within the patient safety regional committee; 3) identification of one or more professionals expert in antibiotic use within each hospital; 4) adoption of a common set of alert microorganisms at regional level and definition of a regional registry for AMR with periodical reports to clinicians; 5) development of regional guidelines for the most frequent ID (pneumonia and urinary tract infections already available; skin and soft tissue infections currently in progress); 6) availability of all documentation in the RHS website; 7) the periodic monitoring of the rates of antibiotic consumption and the compliance with the regional guidelines.

Lessons

The management of the issue of AMR and antibiotic misuse is a priority for FVG RHS. We adapted the available scientific evidence, mostly referred to single hospitals, to a regional approach. The impact of our AS project is positive in terms of developed processes and available tools. The impact in terms of exposure will be verified in the next months.

Key messages

- Antibiotic overuse and misuse is a first-line patient safety issue. Effective AS programmes play a key role to impact on the existing, alarming data on antimicrobial consumption
- The AS programme of FVG RHS actively engaged a large part of the professionals involved in antibiotic management

to reduce inappropriate exposure to antibiotics and infections from MDR bacteria

Comparison of virus dispersal and aerosolization by different hand-drying devices

Keith Redway

K Redway, P Kimmitt
Department of Biomedical Sciences, Faculty of Science & Technology, University of Westminster, London, UK
Contact: K.Redway@westminster.ac.uk

Background

World Health Organization and EU hand hygiene guidelines state that if electric hand dryers are used, they should not aerosolize pathogens. Previous studies have investigated the dispersal by different hand-drying devices of chemical indicators, fungi and bacteria on the hands. This study assessed the aerosolization and dispersal of virus on the hands to determine any differences between hand-drying devices in their potential to contaminate other occupants of public washrooms and the washroom environment.

Methods

A suspension of MS2, an Escherichia coli bacteriophage virus, was used to artificially contaminate the hands of participants prior to using three different hand-drying devices: jet air dryer, warm air dryer, paper towel dispenser. Virus was detected by plaque formation on agar plates layered with the host bacterium. Vertical dispersal of virus was assessed at a fixed distance (0.4 m) and over a range of different heights (0.0 – 1.8 m) from the floor. Horizontal dispersal was assessed at different distances of up to three metres from the hand-drying devices.

Virus aerosolization and dispersal was also assessed at different times up to 15 minutes after use by means of air sampling at two distances (0.1 and 1.0 m) and at a distance behind and offset from each of the hand-drying devices.

Results

Over a range of heights, the jet air dryer was shown to produce over 60 times greater vertical dispersal of virus from the hands than a warm air dryer and over 1300 times greater than paper towels; the maximum being detected between 0.6 and 1.2 metres from the floor. Horizontal dispersal of virus by the jet air dryer was over 20 times greater than a warm air dryer and over 190 times greater than paper towels; virus being detected at distances of up to three metres. Air sampling at three different positions from the hand-drying devices 15 minutes after use showed that the jet air dryer produced over 50-times greater viral contamination of the air than a warm air dryer and over 110-times greater than paper towels.

Conclusions

Due to their high air speed, jet air dryers aerosolize and disperse more virus over a range of heights, greater distances, and for longer times than other hand drying devices. If hands are inadequately washed, they have a greater potential to contaminate other occupants of a public washroom and the washroom environment.

Key messages

- Jet air dryers with claimed air speeds of over 600 kph have a greater potential than warm air dryers or paper towels to aerosolize and disperse viruses on the hands of users
- The choice of hand-drying device should be carefully considered. Jet air dryers may increase the risk of transmission of human viruses, such as norovirus, particularly if hand washing is inadequate

The 2009 influenza A/H1N1 epidemiology, media-attention and public-reaction in 5 European countries

Amena Ahmad

A Ahmad[1], N Fröhlich[1], E Das[2], C Klemm[3], V Kessler[1], JH Richardus[4], R Reintjes[1,5]
[1]Department of Health Sciences, Hamburg University of Applied Sciences, Hamburg, Germany
[2]Radboud University Nijmegen, The Netherlands
3VU University Amsterdam, The Netherlands
[4]Erasmus MC Rotterdam, The Netherlands
[5]University of Tampere, Finland
Contact: amenaalmes.ahmad@haw-hamburg.de

Introduction

In 2009, influenza A/H1N1 caused the first pandemic of the 21st century. As part of the EU funded project E-com@EU – this study aims to explore the time-dependent interplay between the changing influenza A/H1N1 epidemiology, media attention, public risk perception and public behaviour in terms of vaccine uptake along the pandemic time-line in five European countries (Czech Republic, Denmark, Germany, Spain and UK).

Methods

Data on the 2009 A/H1N1 epidemiology (reported no. of cases and deaths), the A/H1N1 vaccine uptake and public risk perception (from Apr.2009 – Mar.2010) were retrieved from various published literature sources. Media attention was estimated by the number of influenza A/H1N1 related news reports in selected print-media and TV newscasts in the five countries. The dynamics and interactions of these elements were analysed along the epidemic time-line.

Results

All five countries were significantly affected by two influenza A/H1N1 waves – the first in spring followed by the second, larger wave in autumn/winter 2009. Vaccine uptake among the general population and at risk groups including health care workers was low and occurred mainly within a short period of around four weeks after the vaccine became available. Media attention surged with the WHO declarations of the pandemic, before the actual pandemic started to spread across European countries, and dropped to lower levels thereafter.

Conclusion

The combined analysis primarily shows that media logic does not equate epidemiological logic i.e. media attention does not necessarily increase with increased numbers of infections but spotlights certain key events based on their news value. These media attention time-periods however posit windows of opportunity to inform the public about resources where they can seek reliable information once it becomes available and when public interest rises.

Key messages

- Media attention does not necessarily rise with increased number of infections (2009 A/H1N1) but spotlights certain key events based on their news value such as novelty, seriousness or interest
- High media attention periods can be used to inform the public about resources where they can seek reliable information once it becomes available and when public interest rises

Low diagnosis and treatment rates of hepatitis C in Poland call for improvements in testing access

Natalia Parda

M Stepien[1], K Madalinski[2], N Parda[1], P Godzik[2], A Kolakowska[2], K Zakrzewska[2], M Rosinska[1]
[1]Department of Epidemiology, National Institute of Public Health – National Institute of Hygiene, Warsaw, Poland
[2]Department of Virology, National Institute of Public Health – National Institute of Hygiene, Warsaw, Poland
Contact: nparda@pzh.gov.pl

Background

Hepatitis C is still one of the public health priorities in the area of infectious diseases. Due to asymptomatic course many cases remain undiagnosed and untreated, which can cause high morbidity rates of late consequences of HCV infection. We aimed at calculating indicators useful in monitoring the efficiency of health care system to timely diagnose and treat HCV.

Methods

We used data from an ongoing study started in 2012, from 52 randomly selected primary health care units in urban and rural areas in 10 voivodeships. Each unit offered 200 to 800 HCV tests for randomly selected adults. Each patient filled the questionnaire and donated venous blood for anti-HCV and

HCV RNA testing to confirm the infection. Additionally, we used the data from routine comprehensive surveillance system in 2013–2014 and data on the number of treated patients. The data on new diagnoses were compared to the denominator population size of the HCV-infected population, estimated based on the cross sectional study.

Results

Overall, 20,249 persons with definite test results available were analyzed: 6,837 (33.8%) men and 13,412 (66.2%) women. Anti-HCV prevalence was 1.1 % [95% CI 0.9%- 1.2%] and HCV RNA prevalence was 0.5% [95% CI 0.4%- 0.6%] or 157,588 infected adults. 78% of them were not aware of their status. The number of new diagnoses reported per year was 3,100 (2013-2014) or approximately 25 per 1,000 undiagnosed HCV RNA (+) cases. This indicator was lower among males, especially those aged <30 and >70, and persons living in rural areas. Approximately 3,000 persons per year initiate treatment for HCV or 19 per 1,000 HCV RNA (+) cases in population.

Conclusions

Our study confirms low diagnosis and treatment rate of HCV in Poland. Specific efforts to increase testing should be made for rural population and men younger than 30 potentially through introducing HCV testing in primary health care. These indicators may be used to compare different regions or countries.

Key messages

- Knowledge of HCV infection status is very low in Poland: 78% of HCV-RNA (+) cases were not aware of it
- Collation of annual number of diagnoses and treatments derived from routine surveillance and estimated HCV RNA (+) population allows for better understanding the efficiency of testing system

The effect of educational intervention on adolescents regarding HPV awareness and vaccination

Maria Ganczak

M Ganczak[1], *B Owsianka*[2], *Z Szych*[3]
[1]Department of Public Health, Pomeranian Medical University, Szczecin, Poland
[2]Tertiary Hospital, Zgorzelec, Poland
[3]Department of Computer Science and Education Quality Research, Pomeranian Medical University, Szczecin, Poland
Contact: ganczak2@wp.pl

The findings show that vaccination uptake among Polish adolescents is 10-fold lower compared to the EU average. Objective: to evaluate the effects of 3 different types of HPV educational interventions for adolescents, regarding their knowledge and intention to be vaccinated.

Methods

A sample of 600 students was recruited (June 2013-October 2014) from the 3 high schools in Zgorzelec, Poland. We randomized participants into one of 4 groups: (1) survey completion without education (control group IV) or (2) survey completion following education: a. leaflets (group I), b. lecture (II) c. lecture & workshop (III) - the latter 3 were intervention groups, and these assessed HPV knowledge, vaccination history and vaccination intent (for unvaccinated participants).

Results

Among 600 students (47.3% females, Me age 17 years), 1.5% (95%CI = 0.52%-2.84%), only females, had completed HPV vaccination. The main sources of HPV knowledge before intervention were media (73.2%), school (26.8%). The intervention groups had higher HPV knowledge scores - for all groups: Me = 8, than the control group - Me = 1 (for all inter-group comparisons $p < 0.0001$). Among unvaccinated individuals ($n = 591$), the intervention groups did not differ from each other ex re HPV vaccination intent ($p > 0.3$), but higher HPV vaccination intention was observed in the intervention groups (66.0%; 97/147, 72.1%; 106/147, and 64.1%; 96/149 respectively) compared to the control group (49.3%; 73/148); OR = 1.99, OR = 2.69, and OR = 1.86 respectively; I group/IV group difference: $p = 0.006$, II/IV: $p = 0.001$, III/IV: $p = 0.01$ respectively.

Conclusions

Despite ECDC recommendations, Polish adolescents continue to have alarmingly low HPV knowledge and vaccination rates. The study suggests that educational interventions to increase HPV awareness and vaccination, as leaflets, lectures or participatory workshops do not differ in their positive effect in the boosting of vaccination rates and remain useful public health tools to limit HPV spread.

Key messages

- Polish adolescents continue to have alarmingly low HPV knowledge and vaccination rates
- Educational interventions to increase HPV awareness and vaccination, as leaflets, lectures or participatory workshops do not differ in their positive effect in the boosting of vaccination rates

Quality assurance and quality improvement in national HIV prevention policies in Europe

Javier Toledo

J Toledo[1], *O Castillo-Soria*[2], *M Pereboom*[3], *A Nardone*[3], *M Wentzlaff-Eggebert*[4], *D Seery*[5], *Y Shajanian-Zarneh*[4], *H Reemann*[4], *B Rice*[3], *V Delpech*[3], *B Rodriguez*[2]
[1]DG Public Health Aragón, Zaragoza, Spain
[2]National Aids Strategy, Ministry of Health, Social Services and Equality, Madrid, Spain
[3]Public Health England. London. UK
[4]Federal Centre for Health Education, Köln, Germany
[5]The Sexual Health Centre, Cork, Ireland
Contact: jtoledo@aragon.es

Issue/problem

HIV remains a major public health concern in Europe, with nearly 30,000 new HIV diagnoses in 2012, and many countries reporting increasing numbers of infections.

Problem

Improving the quality of HIV prevention activities to become more effective is a key objective of HIV policies. Quality Assurance/Quality Improvement (QA/QI) are management tools that systematically assess and improve the factors that determine the success of interventions. Quality Action, an EU co-funded project across 25 European countries, has promoted the use of 5 tools in HIV prevention using a combination of tool development, training workshops, supported applications, evidence review and policy advocacy.

A short email survey of national HIV leads in 30 European countries was undertaken (May-July 2014) to assess if national HIV policies contained QA/QI criteria and future policy plans to introduce recommendations for QA/QI.

Results

Nineteen countries responded to the questionnaires after three rounds (63.33%). In three cases no recipient could be identified. All countries have an official policy for HIV but only 57% reported criteria for QA/QI. Fourteen countries are reviewing their national HIV prevention strategies, of which 11 (79%) are likely to include recommendations around QA/QI. Sixteen countries are interested in receiving support to include QA/QI in their policies.

Lessons

There is a strong interest to include policy recommendations for the wider dissemination and practice of QA/QI tools to improve HIV prevention activities. These data will underpin the development of a policy kit to encourage the wider dissemination of QA/QI as part of HIV prevention activities.

Key messages

- There is a strong interest in European countries to improve HIV prevention activities using QA/QI tools
- QA/QI tools should be embedded as an integral part of HIV prevention activities

Vaccinating adults at risk for pneumococcal disease in the hospital setting: a pilot study

Chiara de Waure

C de Waure[1], GE Calabrò[1], M Nicolazzi[2], T Moretti[2], F Di Nardo[1], R Landolfi[2], W Ricciardi[1]
[1]Institute of Public Health, Catholic University of the Sacred Heart, Rome
[2]Department of Medical Sciences, Teaching Hospital ''A. Gemelli'', Rome
Contact: chiara.dewaure@rm.unicatt.it

Issue

Worldwide, Streptococcus Pneumoniae is responsible for a considerable burden of illness especially in elderly and in people affected by chronic diseases. Vaccination reduces the burden of disease and two vaccines are currently available: a polysaccharide (PPV23) and a conjugate one (PCV13). Notwithstanding national recommendations to vaccinate people at risk, reaching them is not easy, especially in adulthood. For this reason a project was launched in Italy with an unrestricted grant of Pfizer in order to catch people at risk in the hospital setting.

Description of the problem

Vaccination of adults at risk is a relevant challenge for Public Health. The primary goal of this study is to estimate the prevalence of people at risk for pneumococcal diseases who have access to the hospital and are not vaccinated and to offer them the opportunity to be vaccinated in the hospital. For this purpose, all patients 50 years old or older who are admitted to the Department of Medical Sciences of the Teaching Hospital 'A. Gemelli' are interviewed through a questionnaire in order to identify eligibility to vaccination and, in that case, offer them PCV13.

Results

The project is ongoing but, at the present, it is showing that the prevalence of people at risk for pneumococcal diseases admitted to the hospital is very high and that the most of them did not receive any recommendation to be vaccinated. Beyond providing epidemiological data, the project is expected to increase the awareness of the need of vaccination, to provide eligible people with the vaccine and to support decision making in the identification of new strategies for setting up vaccination programs.

Lessons

Pneumococcal vaccination has been already proved to reduce the incidence of pneumococcal diseases and to be cost-effective. This project will contribute to increase the knowledge of the current status of pneumococcal vaccination and its awareness and to disclose possible ways to increase vaccination coverage.

Key messages

- People who are at high risk for pneumococcal diseases often do not receive recommendation to be vaccinated and may be easily observed in the hospital
- Capturing adults at risk for pneumococcal disease in the hospital setting may represent an effective strategy to increase the vaccination coverage and to offer a better integrated healthcare

5.K. Pitch presentations: The impact of chronic diseases

Gender differences in European patients with coronary heart disease

Delphine De Smedt

D de Smedt[1], E Clays[1], J De Sutter[1], J Dallongeville[2], S Gevaert[1], K Kotseva[3], D de Bacquer[1]
[1]Department of Public Health, Ghent University, Ghent, Belgium
[2]Unité d'Epidémiologie et de Santé Publique, Institut Pasteur de Lille, France
[3]Department of Cardiovascular Medicine, National Heart and Lung Institute, Imperial College London, London, UK
Contact: delphine.desmedt@ugent.be

Background

Females as well as lower socioeconomic classes are known to have a worse coronary risk factor profile. The aim of this study was to focus on gender differences regarding risk profile and lifestyle factors, as well as the interplay between gender, age and educational level in a large European sample of patients with clinically developed coronary heart disease.

Methods

Analyses are based on the recent EUROASPIRE IV (EUROpean Action on Secondary and Primary Prevention through Intervention to Reduce Events) cross-sectional survey (2012-2013) across 24 European countries. A total of 6050 male and 1948 female patients were interviewed and examined $\geq$6 months after their hospitalisation for a first or recurrent coronary event. Multilevel analyses, accounting for the clustering within countries, were performed.

Results

The proportion of patients with raised blood pressure differed between males and females among older ($\geq$65 years) lower educated patients (males 46.0% versus females 57.6%; $p = 0.003$). Furthermore, raised total cholesterol was more common in females, with the greatest difference seen in older lower educated patients (males 24.7% versus females 47.3%; $p < 0.001$) and the smallest differences in younger higher educated patients (males 40.3% versus females 47.9%; $p < 0.001$). Similarly, the proportional differences of patients reporting no leisure time physical activity were the largest in older, lower educated patients (males 9.46% versus females 16.42%; $p < 0.001$). Regarding lifestyle advice received and reported modifications, no significant differences between gender were observed.

Conclusions

Overall, female coronary patients had a more adverse risk factor profile, with gender differences depending on age and educational level. Older, lower educated females seem to be the most vulnerable patient group, requiring special attention. Regarding lifestyle advice received and reported modifications, no gender differences were seen.

Key messages

- Older, lower educated females with coronary heart disease seem to have to most adverse risk factor profile
- No gender difference regarding lifestyle advice received or reported lifestyle changes made was observed

The association between fibrinogen response to mental stress and cardiovascular risk

Antonio Ivan Lazzarino

AI Lazzarino[1], M Hamer[1], D Gaze[2], P Collinson[2], A Rumley[3], G Lowe[3], A Steptoe[1]
[1]Department of Epidemiology and Public Health, University College London, London, UK
[2]Chemical Pathology, Clinical Blood Sciences, St George's Healthcare NHS Trust, London, UK
[3]Institute of Cardiovascular and Medical Sciences, University of Glasgow, Glasgow, UK
Contact: a.i.lazzarino@gmail.com

Background

Plasma fibrinogen is considered as a positive mediator between mental stress and cardiovascular disease because it is an acute-phase protein released in response to mental stress and a coagulation factor. However those three factors have never been studied together within a single integrated framework, using cardiac troponin T as a marker of cardiovascular risk.

Methods

491 disease-free men and women aged 53 to 76 were tested for fibrinogen levels before, immediately after, and following recovery from standardized mental stress tasks. We measured plasma cardiac troponin T using a high-sensitivity assay (HS-CTnT) and coronary calcification using electron-beam dual-source computed tomography.

Results

The average fibrinogen concentration increased by 5.1% (SD = 7.3) in response to stress and then tended to return to baseline values. People with higher baseline fibrinogen values had smaller increases (blunted responses) following the stress task ($P = 0.001$), and people with higher stress responses showed better recovery ($P < 0.001$). In unadjusted analyses, higher baseline fibrinogen was associated with higher chances of having detectable HS-CTnT ($P = 0.072$) but, conversely, higher fibrinogen response was associated with lower chances of having detectable HS-CTnT ($P = 0.007$). The adjustment for clinical, inflammatory, and haemostatic factors, as well as for coronary calcification eliminated the effect of baseline fibrinogen, whereas the negative association between fibrinogen response and HS-CTnT remained robust: the odds of detectable HS-CTnT halved for each 10% increase in fibrinogen concentration due to stress ($OR = 0.49$, $P = 0.007$, 95%CI = 0.30-0.82).

Conclusions

Greater fibrinogen responses to mental stress are associated with lower likelihood of detectable high-sensitivity troponin T plasma concentration. A more dynamic fibrinogen response appears to be advantageous for cardiovascular health.

Key messages

- Fibrinogen is not a positive mediator between mental stress and cardiovascular disease
- The higher the fibrinogen response to mental stress is, the lower the risk of cardiovascular disease

Decomposition of socioeconomic inequalities in cardiovascular disease from mid-life to old age

Paola Mosquera

PA Mosquera, PE Gustafsson, AK Waenerlund, L Weinehall,
A Ivarsson, M San Sebastian
Umeå University, Dept of Public Health and Clinical Medicine, Umeå, Sweden
Contact: paola.mosquera@umu.se

While the social determinants of cardiovascular disease (CVD) are fairly well-known, the determinants of socioeconomic inequalities in CVD are scarcely studied and almost completely based on cross-sectional designs in which the changing circumstances across the life course are not taken into account. The present study seeks to incorporate a life course approach to the social determinants of socioeconomic inequalities in CVD. The specific aims were to 1) examine how income-related inequalities in CVD change over two decades (four periods) of the mid-late life course, and 2) identify the key social determinants of the inequalities at each time period. The cohort ($N = 44{,}039$) comprised all individuals aged 40–60 years in 1990 who during 1990–2010 were enrolled in the county-wide preventive effort ‘‘Västerbotten Intervention Program’’ (VIP). The cohort was followed from 1990 to 2010 by Swedish population register data linked by the SIMSAM Lab micro data infrastructure at Umeå University. First-time hospitalization for CVD and mean earned income were used to calculate the concentration index (CI) during four periods of 5–6 years. The CIs at each period were decomposed by sociodemographic factors, using Wagstaff-type decomposition analysis. Results suggest that inequalities in CVD increase gradually from mid-life to old age; initially non-significant but particularly marked among the elderly. The decomposition showed that, from middle to old age, educational and employment inequalities underwent a transition from initially dominant to a moderate role in explaining the health inequalities, coupled with and increasing importance of age and a stable role of income. In conclusion, the study illustrates the need for incorporating a dynamic life course perspective into research, policy and practice concerned with equity in health.

Key messages

- Income-related inequalities in cardiovascular disease, as well as its key social determinants, varies across the life course period from mid-life to old age
- To explain and ultimately address socioeconomic inequalities in cardiovascular disease, the dynamic life circumstances that occur along the life course need to be taken into account

Impact of Chronic Care Model on type II diabetes and heart failure in Tuscany region, 2010–2014

Ersilia Sinisgalli

E Sinisgalli[1], *D Matarrese*[2], *L Aramini*[2], *F Profili*[3], *P Francesoni*[3]
[1]School of Specialization in Hygiene and Preventive Medicine, University of Florence, Florence, Italy
[2]Planning and Organization of care, Tuscan Region, Florence, Italy
[3]Regional Health Agency of Tuscany, Florence, Italy
Contact: ersiliasinisgalli@libero.it

Issue/problem

In the last years Tuscany, similarly to other developed countries, experienced a growth of chronic diseases' prevalence and of related mortality and costs, most of all due to ageing of the population. Two of the most prevalent chronic diseases in the Tuscan population are type II diabetes and heart failure (prevalence of 6% and 2% respectively).

Description of the problem

To address this scenario in the near future and reduce mortality and costs related to these diseases, the Regional Health Service decided the progressive implementation from 2010 of the Chronic Care Model (CCM), a proactive management of chronic diseases, already implemented in other countries. Multidisciplinary teams composed by general practitioners and nurses were created to enrol patients with diagnosed type II diabetes or heart failure in defined clinical pathways.

Results

In 2014 CCM covered the 40% of Tuscan population. After four years patients enrolled in CCM were compared with those not enrolled (non-CCM) for mortality and hospitalization.

Diabetic patients in CCM received more appropriate care than patients not-CCM: +55% had an adequate disease monitoring (Guideline Composite Indicator) and +12% followed a statin therapy.

Hospitalization for diabetes complications, in particular cardiovascular ones, increased by 10%. Overall mortality decreased by 15% respect to patients not-CCM.

Heart failure patients in CCM also had an overall mortality decreased by 17% respect to those non-CCM; hospitalization for heart failure and other cardiovascular causes increased by 15%. All results below were statistically significant ($p < 0{,}05$)

Lessons

CCM is effective in reduce mortality for patients enrolled, despite increase in hospitalization's costs. The project is still expanding in our region to reach 100% of population and include other chronic diseases; CCM should be implemented in other regions in association with other intervention of public health to improve results achieved so far

Key messages

- Proactive management of chronic disease is necessary to reduce and delay complications preserving patients' quality of life; CCM is partly effective to reach these targets in our project
- Overall mortality decreased in patients enrolled in CCM, despite an increase of health services' costs; this model must be expanded and improved to reduce costs and maintain the positive results

Trends in the incidence of visual impairment due to diabetic retinopathy in Ireland, 2004–2013

Marsha Tracey

ML Tracey[1], SM McHugh[1], AP Fitzgerald[1], CM Buckley[1,2], RJ Canavan[3], PM Kearney[1]
[1]Epidemiology and Public Health, University College Cork, Cork, Ireland
[2]Department of Public Health, Health Service Executive South, Cork, Ireland
[3]Department of Endocrinology, St Vincents University Hospital, Dublin, Ireland
Contact: m.treacy@ucc.ie

Background

Diabetic retinopathy is a leading cause of visual impairment (VI). The last study to report the trends of blindness due to diabetic retinopathy was carried out in 2003 and since then a national diabetic retinopathy screening programme has been introduced (2013). Contemporary data are needed to evaluate the future impact of screening. The aim was to describe trends in the incidence and prevalence of blindness due to diabetic retinopathy in the adult population in Ireland between 2004 and 2013.

Methods

Data on blind registration due to diabetic retinopathy in adults aged 18 years or over who are listed with the National Council for the Blind Ireland, (Jan 2004-Dec 2013) were analysed. Incidence and prevalence rates of blindness due to diabetic retinopathy were calculated in both the adult population with diagnosed diabetes and the total adult population. Cuzick's trend test was used to test for changes over time.

Results

Since 2003 the number of new blind registrations increased by 114% (2003: 323 to 2013: 671). Between 2004 and 2013 the incidence of blindness due to diabetic retinopathy remained stable (2004: 26.7 [18.9-37.4] to 2013:19.5 [12.7-28.6] per 100, 000 population with diabetes; p trend = 0.8). Whereas the prevalence of blind registration due to diabetic retinopathy increased in both the total population (2004: 11.3 [95% CI 10.2-12.6] to 2013: 20.3 [95% CI 18.8-21.8] per 100, 000 population; ptrend = 0.002) and the population with diagnosed diabetes (2004: 429.6 [95% CI 386.5-477.3] to 2013: 449.2 [95% CI 417–483.8] per 100, 000 population with diabetes; ptrend=0.03).

Conclusions

The incidence of blindness due to diabetic retinopathy has remained stable over the past decade. This may be attributed in part to the rising prevalence of diabetes or an increase in early detection due to the initiation of local retinal screening initiatives. Our findings provide useful baseline statistics to monitor the impact of the national screening program.

Key messages

- The incidence of blindness due to diabetic retinopathy has remained stable over the past decade
- Our findings will provide useful baseline statistics to monitor the impact of the national diabetic retinopathy screening program

Association between framingham risk score and work limitations in health surveillance

Raffaele Palladino

R Palladino[1,2], O Caporale[2], I Torre[2], M Triassi[2]
[1]Department of Public Health, ''Federico II'' University, Naples, Italy
[2]Department of Primary Care and Public Health, Imperial College London, UK
Contact: palladino.raffaele@gmail.com

Introduction

Cardiovascular disease risk factor control should be a priority when evaluating workers' health. The aim of this study is to evaluate the long-term risk of work limitations by using the Framingham risk score (FR), a risk score estimating the 10-year likelihood of cardiovascular events.

Methods

A cohort of workers undergoing scheduled medical examinations for health surveillance has been followed from January 2006 to March 2014. Age, gender, smoking status, body mass index, systolic blood pressure, diabetes, and use of antihypertensive medications have been recorded. Subjects presenting serious concomitant illnesses were excluded. Workers were classified in five different risk categories. Health surveillance diagnosis of limited or unsuitability to work was selected as binary outcome. ANOVA with subsequent Bonferroni correction was used to test differences in FR among subgroups. Multilevel linear mixed model analysis was fitted to assess predictors of FR change over time. Cox regression model was used to study the association between FR at first visit and health surveillance diagnoses over time.

Results

10,005 subjects met the inclusive criteria (mean age 52.5 ± 7.9), 59% were male. Men had higher FR than women (21.9%, 8.0%, $p < 0.001$), male subjects in the higher risk category had a FR 4% higher than those in the lower risk category (25.2%, 20.8%, $p < 0.001$). Factors influencing the increase of FR over time were age (coeff. 0.01, $p < 0.001$), gender (male: coeff. 0.01, $p < 0.001$) and risk category ($p < 0.001$). Increased FR was more likely associated to higher rate of diagnoses of limited or unsuitability to work (HR 6.42 $p = 0.003$) over time.

Conclusions

FR is a strong predictor of health impairment for workers, especially for those considered at higher occupational risk. Therefore it should be used as common tool during targeted medical examinations for health surveillance as well as a long-term predictor of occupational risk assessment.

Key messages

- Framingham risk score is a strong predictor of health impairment for workers, especially for those considered at higher occupational risk
- Framingham risk score should be used as health promotion tool during targeted medical examinations for health surveillance

Health equity policies: glycaemic control and health services use in insured and uninsured diabetics

Yves Jackson

Y Jackson[1,2], J Lozano[1]
[1]Division of primary care medicine, Geneva University Hospitals, Geneva, Switzerland
[2]Global Health Institute, University of Geneva, Switzerland.
Contact: yves.jackson@hcuge.ch

Background

Socioeconomic disadvantage is associated with risks of poor diabetes control. In Switzerland, some vulnerable groups such as undocumented immigrants face barriers in accessing to health insurance and care. The Geneva University Hospitals facilitates access to best standard care to all patients irrespective of residency and insurance status. We compared glycaemic control and healthcare utilization in diabetics with and without insurance.

Methods

We retrospectively analysed hospital data of all type 2 diabetic outpatients aged below 65 who had one or more HbA1c tested from Jan 1st 2012 to Dec 31st 2013. A mean HbA1c level $< 7.1\%$ defined good diabetes control.

Results

Of the 209 diabetic outpatients, 80 (38%) were uninsured. Diabetes was well controlled in 109 (52.2%) without significant difference between groups ($p = 0.776$). In a multivariate logistic regression model, there was no significant association between diabetes control and insurance (OR: 1.14; 95%CI: 0.63-2.05), European origin (OR: 0.85; 95%CI: 0.45-1.60), female gender (OR: 1.15; 95%CI: 0.66-2.01) and age below 50 (OR: 1.25; 0.70-2.24). The mean number of HbA1c tests performed and the proportions of patients with >1 HbA1c tests performed did not significantly differ between groups. Both group had a comparable mean follow-up period between first and last tests ($p = 0.266$). Proportion of patients with HbA1c improvement (37.2% versus 40%, $p = 0.960$) and mean HbA1c change

(− 0.63% (SD: 2.3) versus 0.57 (SD: 1.9), p = 0.870) did not differ significantly between insured and uninsured. Insured had non-significantly more health interventions (20, SD: 20.1) than uninsured (16.9, SD: 10.9) (p = 0.16).

Discussion

This study shows that policies aiming at facilitating access to best standard diabetes care for vulnerable groups may positively impact on glycaemic control equity between mainstream and vulnerable patients and do not lead to excess in healthcare utilization among uninsured.

Key message

- Equity based health policies to improve access to diabetic care for vulnerable groups reduces the gap in glycaemic control

5.L. Pitch presentations: Health at the workplace

Qualitative systematic review of the health and wellbeing of lone parents in welfare to work

Mhairi Campbell

M Campbell, H Thomson, M Gibson
CSO/MRC Social and Public Health Sciences Unit, University of Glasgow, Glasgow, UK
Contact: Mhairi.Campbell@glasgow.ac.uk

Background

Lone parents and their children experience higher than average levels of adverse health and social outcomes. These poor outcomes are largely explained by high rates of poverty. Many high income countries have attempted to address high poverty rates by introducing employment requirements for lone parents in receipt of welfare benefits. However, there is evidence that employment may not reduce poverty or improve the health of lone parents and their children. Qualitative data from lone parents' experiences of welfare to work interventions (WtW) can provide explanations of, and possible mechanisms for, the impacts of WtW on health.

Methods

A systematic review of qualitative studies reporting lone parents' accounts of how participation in WtW affected health and wellbeing. We searched 17 bibliographic databases. Two reviewers independently screened references and assessed study quality. The data were synthesised thematically.

Results

Five key themes were identified in 16 qualitative studies: domestic role; the WtW system; employment; economic circumstances; and health and wellbeing. WtW requirements often conflicted with child care responsibilities. Available employment was often precarious and poorly paid. There were negative impacts on health, including increased stress, fatigue, and depression; and a positive impact of improved self-worth. WtW appeared to influence health through the pathways of conflict and control, which overarch each of the key themes. WtW involved a loss of control over the nature of employment and decisions regarding care of children. Access to social support allowed some lone parents to manage the conflict associated with employment, and to increase control over their circumstances, with potentially beneficial health impacts.

Conclusions

WtW programmes can result in increased conflict and reduced control, which may lead to negative impacts on mental health. Availability of social support may mediate the health impacts of WtW.

Key messages

- WtW was linked to negative health, such as stress, fatigue, and depression. Conflict and control are possible mechanisms linking lone parents' participation in WtW with health

Screening for OSA in the workplace

Nicola Magnavita

N Magnavita
Department of Public Health, Università Cattolica del Sacro Cuore, Roma, Italy
Contact: nicolamagnavita@tiscali.it

Background

Obstructive sleep apnea syndrome (OSA) is the single most important preventable cause of excessive daytime sleepiness and of increased risk of driving and work accidents. This disorder is associated with significant morbidity and mortality including cardiovascular, metabolic, and neurocognitive disease and increased cancer-related death.

Methods

Screening for OSA has been performed in the first 4 months of 2012 on 204 workers called for a routine medical examination in the workplace in 11 small companies of the Latium region of Italy. 186 of these workers(91%) were called again to medical examination in the workplace in 2013 and 2014. Workers with suspected OSA were invited to undergo second level studies (specialist neurological or pulmonary examination and possibly, depending on the advice of the specialist, imaging studies such as polysomnography) under the NHS. Adherence to this invitation was verified during subsequent monitoring in the workplace.

Results

25 subjects (12.3%) had mild clinical signs of OSA. Logistic regression analysis showed that clinical suspicion of OSA was significantly associated with the presence of metabolic disorders (OR = 3.83; 95%CI 1.45-10.13) and with psychological complaints score in the highest quartile (OR = 4.67; 95%CI = 1.72-12.64). Only a minority of workers with suspected OSA has followed advice about undergoing further tests under the NHS. In anecdotal cases, confirmation of the diagnosis and subsequent treatment led to health improvement.

Conclusions

Screening for OSA in the workplace is a cheap and potentially useful measure. Physician's advice should be strengthened by policies that encourage the adhesion to subsequent investigations.

Key message

- Screening for OSA should be included during the patient first visit of the practitioner and during medical examinations in the workplace done by occupational physicians

Changing the corporate culture to prevent obesity and chronic diseases at workplace

Emminarie Lucas Garcia

E Lucas Garcia[1,3,4], D Debensason[1,2], J Pommier[3,4], A Flahault[1,5,6], Steering committee[1]
[1]SNCF, Qualité Sociale - Services Médicaux & Prévention. Paris, France
[2]CPRP SNCF, échelon national du contrôle médical, Marseille, France
[3]EHESP French School of Public Health Rennes, Sorbonne Paris Cité
[4]CNRS, UMR CRAPE Centre de Recherches sur l'Action Politique en Europe – 6051, Rennes, France
[5]Faculty of Medicine, Paris Descartes University - Sorbonne Paris Cité, France
[6]Faculty of Medicine, University of Geneva, Geneva, Switzerland
Contact: emminarie.lucas-garcia@sncf.fr

Issue/problem

In a context of health in all policies, obesity prevention must be considered in various sectors including workplace. This work presents a program aimed to change corporate culture to prevent obesity and chronic diseases in one of the largest public companies in France (155 000 employees), the French National Railways Company (SNCF). Program implementation was based on the best practices for designing sustainable health promotion interventions.

Description of the problem

SNCF stakeholders – occupational health professionals, social action service, communication service, company's management – in collaboration with complementary health insurances, trade unions and SNCF sports associations developed a program built through five drivers for change of the corporate culture: (1) development of public health policy at workplace; (2) involvement of employees and multisectoral cooperation in the construction of health policy; (3) development of supportive environments for healthy behaviours at workplace; (4) development of personal skills at workplace; (5) and involvement of occupational health services in health promotion and prevention.

Results

Results were obtained in five domains: (1) adoption of a public health initiative by the company for 2011–2014; (2) engagement of all company's sectors and employees involvement in a public health intervention; (3) screening for overweight and obesity-related comorbidities at workplace and a multidisciplinary intervention for overweight volunteers; (4) increase in healthy menu options at worksite canteens; (5) and implementation of health promotion activities at workplace.

Lessons

Close collaboration between stakeholders and company's management support are important factors to change corporate culture in order to target the multiple interrelated factors contributing to sustainable healthy behaviors to prevent obesity and chronic diseases at workplace through different levels of intervention.

Key messages

- Obesity prevention at workplace needs to change corporate culture
- Tackling different drivers for change at workplace in order to achieve sustainable health promotion interventions

The intersection of policing and stigma in shaping violence and poor health among sex workers

Andrea Krüsi

A Krüsi[1], T Kerr[1], C Taylor[2], T Rhodes[3], K Shannon[1]
[1]British Columbia Centre for Excellence in HIV/AIDS; University of British Columbia School of Population and Public Health, Canada
[2]British Columbia Centre for Excellence in HIV/aids, Canada
[3]London School of Hygiene and Tropical Medicine, London, UK
Contact: akrusi@cfenet.ubc.ca

Background

Over the past decade, there has been a move by a number of higher income countries including the European Union, to control prostitution through 'demand criminalisation', which criminalises the purchase, but not the selling, of sexual services. This study explores the complex ways in which sex work-related stigma intersects with sex work policing strategies to shape street-based sex workers' vulnerability to violence and poor health.

Methods

Vancouver, Canada, provides a unique opportunity to evaluate the impact of policies that criminalise clients as the local police department adopted a sex work enforcement policy that prioritises sex workers' safety over arrest, while continuing to target clients. We conducted semi-structured interviews with 26 cisgender and 5 transgender women street-based sex workers about their working conditions. Data were analyzed thematically and by drawing on concepts of structural stigma and vulnerability.

Results

Our results indicated that despite police rhetoric of prioritizing the safety of sex workers, participants were denied their rights for police protection by virtue of their 'risky' occupation and where thus responsiblized for sex work related violence. Our findings further suggest that sex workers' interactions with neighbourhood residents were predominantly shaped by a discourse of sex workers as a 'risky' presence in the urban landscape and police took swift action in removing sex workers in case of complaints.

Conclusions

Our findings highlight that criminalisation and policing of sex workers' clients and the co-existing stigmatizing assumptions of sex workers as 'at risk' and 'risky', both victims and victimisers, deny sex workers their citizenship rights, facilitate the removal of sex workers from public space and perpetuate labour conditions that render sex workers at increased risk for violence and poor health.

Key messages

- Policy approaches that criminalise sex workers' clients rather than sex workers are based on stigmatizing assumptions of sex workers as both 'risky' and 'at risk'
- This study highlights that the criminalisation of sex workers' clients rather than sex workers perpetuates labour condition that render sex workers at increased risk of violence and poor health

Use of analgesics and psychotrophics following threats and violence at work in human service sectors

Karin Biering

K Biering[1], LP Sønderbo Andersen[1], A Høgh[2], J Hviid Andersen[1]
[1]Danish Ramazzini Centre, Department of Occupational Medicine – University Research Clinic, Regional Hospital West Jutland, Herning, Denmark
[2]Department of Psychology, Copenhagen University, Copenhagen, Denmark
Contact: karbie@rm.dk

Introduction

Exposure to threats and violence at work are common in human services sectors. Previous studies have shown that exposure to threats and violence may have health consequences for the employees, in terms of physical injuries and psychological strain. A previous cross-occupational study found an association between work-related violence and use of psychotropics. The aim of this study was to examine the association between exposure to threats and violence at work in human service sectors and use of analgesics and psychotropics

Methods

5333 Danish employees working in psychiatry, eldercare, the Prison and Probation Service and special schools answered questionnaires about exposure to threats and violence in 2010 and were followed in a population based register of medical prescriptions for 3 years. Outcomes were use of analgetics and psychotropics. The associations were examined by logistic regression.

Results

Across sectors we found that being held or being bit was associated with use of analgesics and psychotropics. The self-reported rating of severity was likewise associated with medication use. However, the associations diminished after adjusting for potential confounders. When analysing each sector separately, the size of the study/the proportion of exposed employees was too limited to reach sufficient precision in the estimates, however, the association between severity and medication use was primarily related to the eldercare sector and Prison and Probation Service.

Conclusion

Exposure to work related threats and violence in human service sectors was not found associated with increased use of analgetics and psychotropics. These negative findings may be explained by resilience by selection into the sectors or the fact that the most exposed workers may have been sick listed and thus has not answered the questionnaire about the exposure. The number of medications users in the cohort was lower than in the general Danish population. The latter may be explained by healthy worker bias.

Key messages

- Exposure to threats and violence at work in human service sectors has limited impact on use of analgetics and psychotropics

- Human service sector workers may be resilient to threats and violence at work

The contribution of occupational exposures to social inequalities in lung cancer risk, Icare study

Gwenn Menvielle

G Menvielle[1], J Franck[1], I Stücker[2], D Luce[3]
[1]ERES, INSERM Pierre Louis Institute of Epidemiology and Public Health, Paris, France; ERES, Sorbonne Universités UPMC, Paris, France
[2]Environmental epidemiology of cancer, Inserm CESP, Villejuif, France; University of Paris Sud 11, Kremlin-Bicêtre, France
[3]Inserm U 1085 – IRSET, Pointe-à-Pitre, France; University of Rennes 1, Rennes, France
Contact: Gwenn.Menvielle@inserm.fr

Background

Higher lung cancer incidence is observed among socially deprived people. Smoking only partly explains these inequalities. Occupational exposures may account for part of these inequalities, but this issue has been little investigated and the available literature suffers from imprecise measurement of exposures as well as possibly biased methods for assessing mediation. We investigated the extent to which smoking and occupational exposures mediated the association between education and lung cancer incidence.

Methods

We analyzed data from 2058 male lung cancer cases and 2711 male controls included in a large French population-based case-control study, the ICARE study. Detailed information on lifelong tobacco consumption and occupational exposures to various carcinogens was collected. We conducted inverse probability-weighted marginal structural models.

Results

Large educational inequalities are observed with an OR of 2.43 (95% CI 2.08-2.83) among men with less than tertiary education when compared with those with tertiary education. We found a substantial effect of education through smoking (OR = 1.31, 1.29-1.33) as well as through occupational exposures (asbestos OR = 1.13, 1.08-1.18; silica OR = 1.09, 1.05-1.12). Using a more detailed classification of education, the effect of occupational exposures was substantial among men with primary or vocational education only. The results will be further developed by including other carcinogens and accounting for occupational class as this may confound the associations. Preliminary results, however, suggest that this did not substantially bias our results.

Conclusions

Our study provides a quantitative estimate of the substantial role of occupational exposures in educational differences in lung cancer incidence. Public health policies that aim at decreasing exposure to carcinogens at work could probably help to reduce socioeconomic inequalities in the cancer field, in addition to tobacco control.

Key messages

- Occupational exposures contribute substantially to educational inequalities in lung cancer incidence among men
- Besides tobacco control policies, reducing occupational exposure would help decreasing these inequalities

Self reported olfactory disorders and occupational exposure to phenolic resins

Matteo Riccò

M Riccò[1], S Cattani[2], F Pezzetti[3], E Pistelli[4], C Signorelli[3]
[1]Azienda Provinciale per i Servizi Sanitari della P.A. di Trento, Dipartimento di Prevenzione, UOPSAL, Italy
[2]Università degli Studi di Parma, Dip. di Scienze Chirurgiche, Corso di Laurea in Scienze Infermieristiche, Via Gramsci 14, Parma, Italy
[3]Università degli Studi di Parma, Dipartimento di Scienze Biomediche, Biocliniche e Traslazionali, Via Gramsci 14, Parma
[4]Industria Abrasivi Parmensi SRL, ItalyVia La Spezia n.160, Parma, Italy
Contact: mricco2000@yahoo.it

Introduction

Volatile chemicals have been associated with quantitative olfactory disorders (QOD). To investigate whether exposure to phenolic resins (PRs) is associated with olfactory impairment, a cross-sectional study of self-reported olfactory impairment (SROI) was performed in 66 occupationally exposed subjects.

Methods

The workers (n = 66, M = 45;F = 21; mean age: 39.8 ± 10.15 years; exposure length: 7.29 ± 6.52) were divided in three exposure group (high exposure, low exposure, not exposed) on the basis of biological exposure indices (BEIs) for urinary phenols. All subjects underwent medical interviews and physical examinations. Whether sense of smell has been normal or abnormal during the last 2 months was asked: the participants were eventually divided into normosmic, hyposmic, hyperosmic. Multivariate logistic regression analyses were performed to identify its risk factors.

Results

Prevalence of SROI was 45.5%, with 21 workers (31.8%) complaining hyposmia, 12 (18.2%) anosmia and 9 (13.6%) hyperosmia. In univariate analyses, female sex was associated with SROI and hyperosmia. High exposure workers showed more frequenlty SROI (OR = 4.714;95%CI = 1.077-20.626) than not exposed (reference) or low exposed (OR = 1.333;95%CI = 0.416-4.274). In multivariate analyses, female sex (adjOR = 5.622;95%CI = 1.525-20.722) was the main risk factor for SROI and hyperosmia (adjOR = 25.143;95%CI = 2.379-265.7) but high exposure to phenol (adjOR = 11.133;95% = 1.060-116.9) was the main risk factors for self reported anosmia.

Conclusions

The present study found slight evidence among a cross-section of chemical industry workers that exposure to phenol may be associated with SROI. On the other hand, self reporting of QOD may be biased from personal factors and further researches with objective measurement are therefore required.

Key messages

- Not only formaldehyde but also phenol exposure is associated with olfactory impairment
- Olfactory impairment should be more strictly evaluated in occupational settings

Characteristics of compensational claimants reporting an occupational disease in Denmark in 2014

Marianne Rudbeck

M Rudbeck[1], JPB Johansen[2], Ø Omland[2]
[1]Department of Social Medicine, Aalborg University Hospital, Aalborg, Denmark
[2]Department of Occupational Medicine, Aalborg University Hospital, Aalborg, Denmark
Contact: rudbeck@dadlnet.dk

Background

The National Board of Industrial Injuries makes decisions on workers' compensation claims. All employers must insure their employees against industrial injury. Employees can get compensation for permanent injury, loss of earning capacity, and reimbursement of expenses for treatment, medication, and aids. These benefits are beyond medical treatment, rehabilitation, sick leave benefit, disability pension, and unemployment benefit. The aim was to identify characteristics to later on improve claimants' possibilities to remain at work.

Method

Every claimant of an occupational disease to The National Board of Industrial Injuries received an electronic questionnaire once after reporting compensational claim. The questionnaire contained questions of health, work, expectations, relations, and coping (COPE). Uni- and multivariate logistic regression analyses were done separately, in consecutive models, and according to coping strategies.

Results

A total of 4294 (20.6%) answered the questionnaire; 2291 with musculoskeletal disease and 450 with skin disease. A percentage of 52.1 and 70.9 with musculoskeletal disease and skin disease, respectively, were at work at time of disclaim.

Several variables of reduced health, functional capacity, and relations were significant in univariate analyses between claimants at work and not at work. In the multivariate analyses reduced work ability and high job satisfaction were significant in musculoskeletal diseases.

Coping strategies in musculoskeletal diseases in multivariate analyses were acceptance, denial, and reduced use of self-distraction, emotional support, and substance use. Coping strategies in skin diseases were reduced use of self-distraction and emotional support.

Conclusion

As expected claimants at work were especially characterized by having less reduced self-reported work ability than claimants not at work. Their coping strategies were especially characterized by reduced use of self-distraction and emotional support.

Key message

- Compensational claimants remained more frequently at work if their self-reported work ability were high and their coping strategies were not characterized by self-distraction

5.M. Pitch presentations: Mental Health

Common mental disorders and cause-specific mortality among ageing employees

Eero Lahelma

E Lahelma[1], O Pietiläinen[1], O Rahkonen[1], J Lahti[1], T Lallukka[1,2]
[1]Department of Public Health, University of Helsinki, Helsinki, Finland
[2]Finnish Institute of Occupational Health, Helsinki, Finland
Contact: eero.lahelma@helsinki.fi

Background

Around a fifth among employees suffers from common mental disorders (CMD). Nevertheless, the associations between CMD and mortality are inadequately understood. We examined whether CMD contribute to subsequent cause-specific mortality among ageing employees, while considering key covariates.

Methods

Baseline survey data, collected in 2000–02, included employees aged 40–60 from the City of Helsinki, Finland, (n = 8960, 80% women, response rate 67%). There was no gender interaction in the studied association and the data were pooled. CMD were measured by the General Health Questionnaire (GHQ-12) and the Short Form 36 Mental Component Summary (SF-MCS), used as standardised and continuous scores. Covariates were gender, social class and chronic health problems. Deaths by the end of 2013 were obtained from Statistics Finland (n = 242, 67% women) and linked to survey data pending consent (n = 6605). Hazard ratios (HR) and 95% confidence intervals (95% CI) were calculated using age as time axis.

Results

GHQ-12 and SF-MCS were unassociated with natural mortality (n = 221). Of the deaths 21 were unnatural. After considering age and gender, both GHQ-12 (HR = 1.87, 95% CI = 1.39-3.51) and SF-MCS (2.25, 1.68-3.02) were associated with unnatural mortality. 11 deaths were suicides and both GHQ-12 (2.18, 1.46-3.27) and SF-MCS (2.72, 1.81-4.08) were associated with suicidal mortality. Covariates had modest effects on the estimates.

Conclusions

CMD as indicated by two reliable and validated instruments were associated with subsequent unnatural mortality, in particular suicidal mortality, among ageing employees. There were no associations for natural mortality. These findings need to be corroborated with larger numbers of deaths. Measures against CMD may prevent deaths due to suicides.

Key messages

- Common mental disorders are prevalent but their severe health consequences are poorly known
- Common mental disorders contribute to unnatural, in particular suicidal mortality

Self-rated health in relation to mental health, physical activity, sedentary behaviour in adolescents

Marketa Lachytova

M Lachytova[1], Z Katreniakova[1,2], P Mikula[1], I Nagyova[1,2]
[1]Department of Social and Behavioural Medicine, Faculty of Medicine, P. J. Safarik University, Kosice, Slovakia
[2]Slovak Public Health Association, Kosice, Slovakia
Contact: lachytova.m@gmail.com

Backround

Self-rated health (SRH) is a valid and reliable subjective indicator of general health. Adolescents perceive their health through personal, behavioural, socio-environmental and psychological factors. We aimed to assess the associations between SRH, mental health problems (MHP), physical activity (PA) and sedentary behaviour (SB) among Slovak urban adolescents.

Method

Data were collected within the EU-FP7: EURO-URHIS 2 project in two largest Slovak cities: Bratislava and Kosice. Sample included 1111 adolescents (RR 88.7%, mean age 14.32 ± 0.48 years, 52.8% boys). SRH was measured with the first item from the SF-36 questionnaire, MHP were assessed by means of the SDQ; and for PA and SB questions from the HBSC 2005/2006 were used. For the analyses the outcomes of SRH, MHP and SB were dichotomized: SRH – less than good / very good or excellent; MHP - normal /borderline or abnormal class; and SB – yes/no (watching TV, using PC more than 2 hours a day). Linear regression analysis (the enter method) was used to determine the associations between SRH and the independent variables.

Results

The majority of the adolescents reported their health as very good or excellent (95.1%). The linear regression analyses revealed that MHP (β −0.14), PA (β −0.11) and watching TV (β 0.09) were significantly associated with SRH (all $p < 0.05$).The F-value for the final model was 5.098 ($p < 0.05$).

Conclusion

Previous research revealed that SRH was associated with various mental health problems. Our findings add to these results by showing that PA and SB are also very important additional predictors of SRH. Better understanding of these associations can help in developing more effective public health intervention programmes for adolescents.

Key message

- Our findings are showing that physical activity as well as sedentary behaviour especially watching television are also very important predictors of self-rated health in adolescents

Healthcare before and after granted disability pension with common mental disorders; a national study

Syed Rahman

E Mittendorfer-Rutz[1], K Alexanderson[1], J Jokinen[2], P Tinghög[1]
[1]Department of Clinical Neuroscience, Division of Insurance Medicine, Karolinska Institutet, Stockholm, Sweden
[2]Department of Clinical Sciences, Division of Psychiatry, Umeå University, Umeå, Sweden
Contact: syed.rahman@ki.se

Background

Recent studies suggest an increase in psychiatric medication before the receipt of disability pension (DP) and a decrease afterwards. The aim was to 1) study if transition to DP due to common mental disorders (CMD) was associated with changes in healthcare use and 2) eventual differences with regard to year of DP granting (before and after changes in social insurance regulations, implying stricter criteria for DP granting).

Methods

Included were all individuals living in Sweden and aged 19–64 years with incident DP due to CMD before (wave 1, 2005–06, n = 24298) or after (wave 2, 2009–10, n = 4056) changes in social insurance policies. Trajectories of healthcare use (in- and specialized outpatient care due to mental or somatic diagnoses) during the 3 years before and 3 years after DP were assessed by DP granting year. Annual adjusted odds ratios with 95% confidence intervals were computed with Generalized Estimating Equations (GEE) method with auto-regressive correlation structure during the 7 year window. Differences in trajectories were assessed by examining the interactions between DP waves, and time in relation to DP granting year. Analyses were adjusted for socio-demographic characteristics.

Results

In the year preceding DP, 4.6% and 19.2% of individuals had mental in- and specialized outpatient care, respectively, in wave 1 (2005-06) compared to 7.9% and 46.6% in wave 2 (2009-10). Specialized care with mental diagnoses increased until the year preceding DP and thereafter declined, regardless of DP granting year, except for outpatient care in wave 1, where it kept increasing following DP. No clear differences were observed in healthcare use due to somatic diagnoses.

Conclusion

The populations between the two waves (2005-06 and 2009–10), receiving DP due to CMD differed considerably. Despite the differences, there was a decline in mental healthcare use trajectories following DP retirement, except the DP granted in 2005–06.This differences might have been caused by changes in the social insurance regulations and requires further research.

Key messages

- Overall, trajectories of healthcare use in individuals on DP due to CMD increase before DP granting and decrease after
- Even though DP incidence appear to have been reduced by stricter policy, the patterns of healthcare use in people on DP due to CMD followed similar trend

Risk factors of neuropsychiatric disorders and symptoms of depression in Swedish children aged 6-17

Linda Beckman

L Beckman[1], S Janson[1], C Nyberg[2], M Kalander Blomqvist[2], L Engh Kraft[1], LB von Kobyletzki[1]
[1]Karlstad University, Department of Public Health, Karlstad, Sweden
[2]County Council of Varmland, department of Public Health and Community, Sweden

Corresponding author's e-mail: linda.beckman@kau.se
Contact: linda.beckman@kau.se

Background

Neuropsychiatric (ND) and depression disorders (DD) are a major public health problem in older children and adults; to the best of our knowledge there is a lack of evidence for younger children. We aim to study the impact of specific risk factors on MD in Swedish children 6–17 years old.

Methods

The database includes data from health examinations on pupils aged 6, 10, 13 and 16 in the county of Värmland, Sweden. Data from two school years (2013/14) was available for uni-and multivariate analyses, stratified by grade and sex, on the relationship between ND, DD, different symptoms of DD with a set of predefined explanatory variables: physical illnesses, impairment, social network, aspects at school and at home.

Results

6-years old: (n = 4794) 71 (1.57%) had ND, and 318 (7.0%) symptoms of DD. Aged 10: (n = 4794) 279 (5.8 %) had ND, 464 (10.1%) had symptoms of DD. The corresponding numbers for aged 13 and (n = 4381) 16 (n = 4564) were 315 (7.2%) and 379 (8.3%); for symptoms of DD 382 (8.7%), 788 (17.2%); and for DD 4 (0.1%), 48 (1.0%) respectively. Male sex increased the likelihood of 2–3 times for ND in all age groups as well as not living with both parents, few friends at school, less physical activity and older age.

The risk of DD and symptoms of DD was increased in pupils with ND in crude analyses and adjusted for gender (e.g. grade 4 ADHD/ADD: Odds ratios (OR) 3.0, 95% CI 1.9-4.5; aOR 3.1, CI 2.0-4.6); in pupils with asthma, allergy, speech problems and visual impairment. Stratified analyses showed that after puberty, a larger proportion of girls had symptoms of, and DD.

Conclusion

Symptoms of DD occurred earlier compared to diagnoses of DD. Physical diseases and impairments were related to DD and symptoms of DD; a weak social network and male sex were associated with ND. Interventions targeting younger children with physical illnesses, weak social network and symptoms of DD might prevent consequences of ND and DD in childhood.

Key messages

- Depressive symptoms occur earlier compared to diagnoses of depression and Neuropsychiatric disorder
- Depressive disorders and symptoms of, is probably under-diagnosed in younger children; the clinical impact of symptoms of depressive disorder needs to be further explored

Burnout and stress in medical students in France: prevalence and associated factors

Joel Ladner

MP Tavolacci, B Veber
School of Medicine, University of Rouen, Rouen, France
Contact: joel.ladner@univ-rouen.fr

Introduction

Medical students experience stress and burn out, and mental illness at a higher rate than the general population, with mental health deteriorating over the course of medical training. The objective was to characterize the burn out and stress and to identify associated factors among medical students.

Methods

In 2013, a cross-sectional study was conducted in medical students in pre graduation (from 4th to 6th). In France, at the end of the 6th year, there is the National Ranking Examination related to heavy workloads for its preparation. An anonymous self-administered questionnaire collected information on sex, age, daily working time for studies. The level of stress was measured used the scale of Cohen (on a total of 40). The burn out was measured using the Maslach scale (MBI) address three scales: emotional exhaustion (ES) used for burn out assessment, depersonalization and personal accomplishment.

Results

A total of 542 students were included (response rate: 88.0%), including 388 students in 4th and 5th year and 3 and 154 students in 6th year (28.4%) The mean age was 23.1 years (SD = 1.6), sex ratio M:W = 0.73. The average stress was 18.0 (SD = 6.6) among 4th and 5th students and 19.4 (SD = 6.9) in the 6th year students (p = 0.03). In the 6th students, 33.6% presented a high level of burn out versus 27.5% in 4th and 5th students (p = 0.004). Depersonalization and personal accomplishment were not significantly different between the two groups. A high level of burn out was significantly associated with stress (AOR = 1.45, 95% CI = 1.35-1.53; p < 10-4) and working hours (AOR = 1.13, 95% CI = 1.05-1.19; p = 0.002)

Conclusion

The prevalence of burn out is high among medical students, especially for those in 6th year, preparing the national examination. Burn out can have personal and professional consequences. These results suggest that new approaches may be needed to reduce the stigma of depression and to enhance its prevention, detection, and treatment.

Key messages

- High prevalence of burn out and stress in our study. Medical schools have a new role in the prevention and management of psychological distress in medical students
- Future research that is both longitudinal and multi-institutional is needed to disentangle and extend the burn out an stress characteristics

Transgender health and health determinants in Sweden – results from a self-selected web survey

Charlotte Deogan

G Zeluf[1], *A Thorson*[1], *C Deogan*[1,2], *L Mannheimer*[2]
[1]Karolinska Institutet, Stockholm, Sweden
[2]The Public Health Agency of Sweden, Stockholm, Sweden
Contact: charlottedeogan@gmail.com

Background

Recent studies have highlighted the health disparities between lesbian, gay, bisexual and transgender (LGBT) and heterosexual individuals and in particular transgender individuals are exposed to substantially more health-related risks than the general population. Studies exploring transgender health in Sweden are lacking.

Methods

The aim of the study was to explore health and health determinants among transgender individuals. Data was collected by a self-selected web survey including questions on a range of health aspects and aspects related to health determinants. Respondents were recruited mainly by social networks and online community websites from September to November year 2014. The analysis was based on 800 respondents, which makes this the largest Health survey among transgender persons conducted in Sweden so far. The study respondents represented various gender identities, sexual identities and transgender experiences.

Results

Discrimination, harassment and low trust in public institutions were highly prevalent compared to the general population. Furthermore, 19% reported ever having been subjected to violence because of their transgender experience and 30% reported having been forced into sex against their own will. Regarding mental health, 36% of respondents reported having seriously considered committing suicide and 5% having attempted suicide, during the past 12 months.

Conclusions

The results suggests that transgender individuals in Sweden report substantial health risks such as discrimination and violence against them, suicide thoughts and suicide attempts as well as high proportions of mental ill health and bad general health.

Key messages

- High rates of self-reported discrimination, violence and ill-health among transgender individuals in Sweden
- Mental ill-health is a prominent problem among transgender individuals in Sweden. Societal interventions to create safe and healthy living conditions for transgender individuals, are needed

ADDICTPREV a motivational website on alcohol, cannabis and tobacco for French students

Laurent Gerbaud

O Reddani[1], *E Born*[1], *A Perrève*[1], *L Gerbaud*[1,2]
[1]Service de Santé Universitaire, Clermont-Ferrand, France
[2]Service de Santé Publique, EA 4681 PEPRADE, CHU Clermont-Ferrand, Université d'Auvergne, Clermont-Ferrand, France
Contact: lgerbaud@chu-clermontferrand.fr

Background

The use of internet is so common among students that it should be also one of the main way for prevention and health education. Most of the website on this field are informational and very few use motivational approaches.

Objectives

We have built a website on alcohol, cannabis and tobacco consumption, mainly based on a motivational approach. It combines self-assessment of the consumption with normative feedback, self-assessment of risks of dependence, tests of the knowledge on biological, psychological and juridical risks related to these addictions, information on the use of local facilities in case of need. The website protects confidentiality as every connection is anonymous.

Results

In three years, the annual number of connections increased from 3.500 to over 8.500. Most of the pages are read and the use of testing remains discretionary, mainly about alcohol and cannabis. Specific panels show high level of satisfaction among users and we are now developing a specific version for mobiles, and two particular programs for helping tobacco cessation and preventing risks in binge drinking.

The main problems are to finance the website scalability and are related to health care and administrative reforms in France. For instance the reduction of the number of regions has dramatic consequences on local facilities of addiction care, so that we hardly keep up to date directories of these structures.

Conclusions

Conceiving and creating a motivational website on alcohol, cannabis and tobacco is not particularly difficult. Maintenance financing and up to date information in a permanent reformed system is much more harder.

Key messages

- prevention on internet is a major issue for health promotion
- website for health prevention should be based on motivational and normative feedback approaches

5.N. Pitch presentations: Children and Food

Eating habits among Italian university students

Adele Anna Teleman

AA Teleman, DI La Milia, A Poscia, FA Di Stefano, P Parente, EM Frisicale, F Lohmeyer, V Soffiani, C de Waure, ML Di Pietro, W Ricciardi
Department of Public Health-Università Cattolica del Sacro Cuore, Rome, Italy
Contact: ateleman@hotmail.com

Background

A sufficient consumption of fruit and vegetables has proven to have an important protective effect towards different diseases and mortality. Nevertheless, some studies reported insufficient daily consumption of fruit and vegetables. Aim of the study is to analyse breakfast consumption, regularity of meals, and fruit and vegetable consumption in the Italian University Student population.

Methods

The study evaluates data taken from the ''Sportello Salute Giovani'' questionnaire, based on the ''Health Behaviour in School-aged Children'' (HBSC) questionnaire. The data regarding age, sex, BMI, number of breakfasts consumed per week, number of eating episodes per day, number of portions of vegetables consumed, number of portions of fruit consumed, intended weight loss, self-reported economic status was analyzed.

A descriptive analysis was conducted. Gender and age differences are tested by Chi2 test and Mann-Whitney test.

Logistic regression analyses were used to study the association between eating episodes and fruit and vegetable consumption.

Results

8.292 questionnaires were analyzed. 67% of responders were female and 33% were male. Results show that only 15,8% of males and 26,3% of the females declared to consume at least one portion of fruit every day ($p < 0.01$) and similar results were found for vegetable consumption. Age does not influence fruit or vegetables consumption, frequency of eating episodes or breakfast habit. Both a regular breakfast and a higher number of eating episodes are significantly associated with a higher frequency of fruit intake (OR = 2.19 and 1.83, respectively) and a higher frequency of vegetables intake (OR = 2.08 and 1.69, respectively).

Conclusions

This study underlines the need to promote nutritional education campaigns to increase adherence to nutritional guidelines. Promoting the consumption of breakfast and of the recommended 5 daily eating episodes may prove to be useful in obtaining a greater consumption of fruit and vegetables.

Key message

- It is necessary to create practical strategies in universities that can facilitate the regularity of breakfast, frequent food intake, and fruit and vegetable consumption

The moderating role of socioeconomic position in the intake of vegetables and soft drinks

Mekdes Gebremariam

MK Gebremariam[1], *N Lien*[2], *S Huasken*[2], *M Bjelland*[2]
[1]Oslo and Akershus University College, University of Oslo, Norway
[2]Universiy of Oslo, Oslo, Norway
Contact: mekdes.gebremariam@medisin.uio.no

Background

Research evidence consistently shows that children and adolescents from parents with a low socioeconomic position have poorer dietary behaviors than their counterparts. However, the mechanisms behind these differences remain poorly understood. The aim of the study was to assess whether the relationship between perceived rules and perceived accessibility and the consumption of soft drinks with sugar and vegetables is moderated by parental education.

Methods

A cross-sectional survey including a total of 440 adolescents (mean age 14.3 years) from five schools was conducted. An online questionnaire was used to collect data among adolescents who reported their usual consumption of soft drinks with sugar and vegetables, and the perceived rules and perceived accessibility related to these behaviors. Parental education was reported by parents themselves. Linear regression analyses were conducted to assess main and moderation effects in the association between the determinants and the dietary behaviors.

Results

After adjustment for relevant confounders, parental education moderated the association between perceived accessibility and soft drink consumption, the association being strongest in those with low parental education, although significant associations were also obtained for those with medium and high parental education. Rules were associated with soft drink consumption among those with low parental education but not in the other groups. The association between the perceived accessibility and the intake of vegetables was also strongest among those with low parental education. No association was found between parental rules and the consumption of vegetables.

Conclusion

There are socioeconomic differences in the association between accessibility and rules and some dietary behaviors. These need to be considered in interventions aimed at reducing socioeconomic differences in adolescents' dietary behaviors.

Key messages

- The impact of parental rules and accessibility on the dietary behaviors of adolescents varies across socioeconomic groups
- This needs to be taken into account in future intervention studies

Dietary patterns and their determinants in a sample of 6 to 12 year old Swiss children

Sara Della Bella

S Della Bella[1], *S Suggs*[1], *P Marques-Vidal*[2], *N Rangelov*[1]
[1]Institute for Public Communication (ICP), Università della Svizzera Italiana, Lugano, Switzerland
[2]Faculté de biologie et médecine, UNIL-CHUV, Lausanne, Switzerland
Contact: dellasa@usi.ch

Background

Diet is a crucial determinant of health. Since individual food items are eaten in combination, the assessment of eating patterns (as an alternative to the single food approach) is important to realistically evaluate a person's diet. Equally important is the investigation of the determinants of such patterns, which can suggest targets for future interventions.

Method

We used Principal Component Analysis (PCA) to reduce data into patterns based upon inter-correlations between dietary items, in a sample of children ages 6–12 in Switzerland ($n = 607$) who enrolled in the FAN project (Family, physical Activity and Nutrition) and completed a 7-day food diary in 2010. These data were used to calculate the daily consumption for eight food groups. Participants received a score for each derived pattern. From these, a set of dummy variables were created synthesizing whether a participant belongs to the highest percentile of a particular pattern. We then investigate the association between belonging to the highest quintile of a pattern and a set of socio-demographic variables using both cross-tabulations and multivariate logistic regressions.

Results

PCA reveals four dietary patterns: the first characterized by a high consumption of fruits and vegetables; the second characterized by high intake of meat and sweets, salty snacks and sugary drinks; the third characterized by high consumption of dairy and farinaceous and the fourth characterized by a high intake of fish and a low intake of eggs. Preliminary results show that being female is associated with belonging to the highest quintile of the fruits and vegetables dietary pattern (Chi2 = 14,598, p = 0,000) and that the coefficient of gender remains statistically significant in the logistic model ($\exp(\beta) = 2{,}128$, $p = 0{,}001$).

Conclusions

Female are more than twice as likely as male to belong to the highest quintile of the healthiest dietary patterns, characterized by high intake of fruit and vegetables.

Key message

- Boys should be targeted in interventions aiming at increasing the consumption of fruits and vegetables among children

Peer influence on healthy eating and physical activity of preschoolers: A systematic review

Stephanie Ward

S Ward[1], *M Bélanger*[2], *D Donovan*[3], *N Carrier*[4]
[1]Faculté de Médecine et des sciences de la santé, Université de Sherbrooke, Centre de formation médicale du Nouveau-Brunswick, Moncton, Canada
[2]Département de médecine de famille, Université de Sherbrooke, Centre de formation médicale du Nouveau-Brunswick, Moncton, Canada; Vitalité Health Network, Moncton, Canada
[3]Département de santé communautaire, Université de Sherbrooke, Centre de formation médicale du Nouveau-Brunswick, Moncton, Canada
[4]Département de nutrition, Université de Moncton, Moncton, Canada
Contact: stephanie.ann.ward@usherbrooke.ca

Background

Approximately 12% of children under the age of five living in developed countries are overweight or obese. It is suggested that preschoolers begin to modify their health-related behaviours during the preschool years as they become exposed to new environments, such as childcare centres. Since children learn by observing and imitating the behaviours of those whom they perceive as similar to themselves, peers may play an important role in promoting healthy eating behaviours and physical activity in young children. This paper systematically reviews how peers influence preschoolers' behaviours, and how future interventions can include children in the promotion of healthier eating and increase physical activity levels in childcare centres.

Methods

Six international databases were searched for quantitative, peer-reviewed, English or French primary studies reporting on the correlates, predictors or effectiveness of peers as role models for healthy eating and physical activity in preschoolers. Risk of bias was independently assessed by two evaluators using the Quality Assessment Tool for Quantitative Studies.

Results

Thirteen articles were included in this review: six measured physical activity, and seven assessed dietary intake. The quality score was rated as weak for nine of these articles, and as moderate for the remaining four. Four of the six physical activity studies reported that children were more physically active when one or more peers were present, compared to being alone, while large peer group size was negatively associated with physical activity in two cross-sectional studies. All nutrition intervention studies reported that children's eating behaviors may be influenced by their peers' food choices, preferences and modeling.

Conclusions

There is low evidence that peers may act as role models to children's eating and physical activity behaviours, and that the influence of peers may be mediated by the number of peers, sex, age and the perceived status of the peers. Future interventions should target peers as agents for positive eating and physical activity behaviour changes in childcare centres.

Key messages

- Peers could act as role models for promoting healthy eating and physical activity in preschoolers
- Higher quality experimental studies are needed to confirm these observations

Associations of body mass index in early adulthood with unintentional mortality in Swedish men

Ting Jia

TJ Jia, PT Per Tynelius, FR Rasmussen
Child and Adolescent Public Health Epidemiology Unit, Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden
Contact: ting.jia@ki.se

Background

Obesity and unintentional injuries are both major public health problems contributing to high disease burdens, but the association between these conditions has been less studied. We aim to examine the dose-response associations between BMI in young adulthood and mortality in unintentional injuries, including population attributable fractions (PAF), in a large population-based cohort of Swedish men.

Methods

We performed a cohort study including 743,398 men identified by linkage of the Multi-generation Register and the Military Service Conscription Register. We examined the relationships of BMI at age 18–20 years with risk of death from all unintentional injuries as well as from specific unintentional injuries. We continued by analyzing the proportion of unintentional deaths that was attributable to underweight, overweight and obesity in large this population-based cohort by Cox regression analysis.

Results

During on 35.9 years of follow-up, 6461 deaths occurred from unintentional injuries, including 3064 deaths from road injury, 978 from poisoning, 503 from falls, 243 from fire, and 348 from drowning. Underweight subjects had a higher risk of death in all unintentional injuries and of death in burns. BMI greater than 25kg/m2 was also associated with an increased risk of death from all unintentional injuries, road accident, falls and poisonings. Estimates of PAF suggested that 4.4% of the mortality caused by unintentional injuries in the Swedish men could have been avoided if BMI were kept between 18.5 to 22.5 kg/m^2. Intellectual capacity and parental social status were confounding factors taken into account in the analyses.

Conclusion

A J-shape association was observed between BMI and risk of unintentional death. Both underweight and overweight increased the death rates for all unintentional death and for specific causes of unintentional deaths. Keeping BMI 18.5 to 22.5 might prevent deaths caused by unintentional injuries to a considerable extent.

Key message

- BMI has a J-shape association with the risk of death from unintentional injuries. Keeping BMI 18.5 to 22.5 might prevent 4.4% of the deaths caused by unintentional injuries in Swedish men population

Risks and threats of social media websites: Twitter and the pro-Ana movement

Elisa Camussi

E Camussi[1], F Bert[1], MR Gualano[1], R Siliquini[1]
1 Department of Public Health Sciences, School of Medicine, University of Torino, Turin, Italy
Contact: elisa.camussi@unito.it

Background

In recent years, different studies outlined the spreading of "pro-anorexia" websites and even their potential harmful effect. This study, for the first time, aims to investigate the presence, popularity and content of the "proana" accounts on Twitter.

Methods

On January 2015, we used "Twitter Search" to retrieve the "proana" accounts, finding 341 of them. We analyzed the number of followers, tweets and the biographical information of the users. We followed these accounts for overall four weeks, assessing the variations in followers and tweets. We also investigated the most used hashtags and the main contents of these profiles.

Results

These accounts were popular (mean followers 2360.9, range 5–32700) and active (mean tweets 4351.2 range: 5–85700). The users were mostly girls (97.9%), in general very young (mean age: 17.9 years, range: 12–28). Only around 6% of the accounts presented a warning text about the dangerous content. Each week we found a mean increase in both followers and tweets. The most used hashtags resulted: "thinspo" (47.9%), "thinspiration" (16.3%), "Thin15" (11.8%), "EDprobs" (9.2%) and "proana" (8.3%). The five more common contents consistedin: autobiographic (86%), "thinspiration" photos (inspirational photos of very thin girls 67.9%), "thinspiration" quotes (motivational mottos 17.0%), "ana tips" (advices for weight loss 6.5%) and "fasting competition" (0.9%).

Discussion

We underlined the elevated number and popularity of pro-anorexia groups on Twitter. These accounts contain dangerous information, especially considering the young age of the users. Thus, parents and healthcare personnel should be aware of this content. Considering the lack of warnings in almost all the accounts, a first step in the control of this content can be the increase of such written alerts.Then, it should be wise to implement common European rules in this field.

Key messages

- The Twitter pro-anorexia accounts resulted popular among the youngsters. Despite the harmfulness of the contents shared, there is a lack of surveillance even in the form of warnings
- Common European rules seem necessary to avoid the harmful consequences of pro-anorexia messages widespread on Twitter

Rate and predictors of anemia among under-five children in rural Armenia

Anahit Demirchyan

A Demirchyan[1], *V Petrosyan*[1], *V Sargsyan*[2], *K Hekimian*[3]
[1]School of Public Health, American University of Armenia, Yearevan, Armenia
[2]Health Learning Hub, World Vision Middle East and Eastern Europe Regional Office, Yerevan, Armenia
[3]Institute of Human Nutrition, Columbia University, New York, NY, USA
Contact: ademirch@aua.am

Background

Despite the growing rates of childhood anemia in Armenia, no studies exploring its risk factors have been conducted in the country. This study investigated the prevalence and predictors of anemia among under-five children residing in a rural region of Armenia targeted by Word Vision (WV) nutrition interventions since 2008.

Methods

The study used HemoCue Hb 201+ analyzer to measure capillary blood hemoglobin level among a large representative sample of under-five children selected through proportionate-to-population size cluster sampling technique from 22 communities of Talin region. Those identified as anemic where included in a case-control study as cases and compared with non-anemic controls randomly selected from the same pool of children. Mothers of cases and controls were interviewed. Logistic regression model was fitted to identify the predictors of anemia.

Results

Of the studied 730 children, 32.4% were anemic with 14.7% having moderate/severe anemia. Infants were the most affected group with 51.1% being anemic at 0–6 months and 67.9% at 6–12 months of age. Logistic regression model identified the following independent predictors of anemia: younger age (OR = 0.89; 95% CI = 0.86-0.92), male gender (OR = 3.34; 95% CI = 1.36-8.17), shorter birth length (OR = 0.80; 95% CI = 0.67-0.95), maternal anemia during pregnancy (OR = 4.81; 95% CI = 1.51-15.39), lower meal frequency per day (OR = 0.68; 95% CI = 0.48-0.96), using biomass fuel for heating (OR = 3.00; 95% CI = 1.25-6.96), and living in a community that received an incomplete set of WV interventions (OR = 0.28; 95% CI = 0.11-0.70).

Conclusion

The study identified several modifiable risk factors that could be targeted to reduce childhood anemia in rural Armenia and, possibly, rural areas in other low/middle-income countries. The suggested interventions included preventing/treating anemia during pregnancy, targeting infants and under-five children with nutrition interventions, and reducing their exposure to biomass fuel smoke.

Key messages

- The detected high rate of childhood anemia in rural Armenia with an early onset and a peak at 6–12 months of age is worrying given its possibly irreversible consequences on child's development
- Childhood anemia in rural Armenia could be reduced by preventing/treating pregnancy anemia, providing adequate nutrition to children, and reducing their exposure to biomass fuel smoke

grated Interventions in Diet, Physical Activity and Life Skills for children and teens – Review

Ulla Walter

A Kula[1], *C Wiedel*[1], *B Borutta*[1], *T Kaeding*[1], *M Vehling*[1], *A Hagen*[1], *C Goldapp*[2], *O Ommen*[2], *U Walter*[1]
[1]Hannover Medical School (MHH), Institute for Epidemiology, Social Medicine and Health Systems Research, Hannover, Germany
[2]Federal Centre for Health Education(BZgA)), Cologne, Germany
Contact: walter.ulla@mh-hannover.de

Background

Diet, Physical Activity and Life Skills are key areas of intervention for prevention and health promotion; approaches combining these areas are believed to be particularly effective. Reviews of the separate fields exist, but little is known about the effects of integrated approaches linking the different fields. The aim of this Review is to give an overview of current studies including at least two of the three mentioned fields that focus on children and teenagers.

Methods

The systematic literature search in 12 databases included studies in English and German published in 2004 to 2014. Reviews were screened for relevant studies. Studies fulfilling the following criteria were included: participants aged between six and 16; at least two of the three mentioned fields combined in the intervention; outcomes assessed on an individual level. A control group and follow-up data were also obligatory. Due to the expected heterogeneity of studies (in terms of design, research question, population, intervention and outcomes) results were analysed qualitatively.

Results

A total of 12.136 unique references were identified, 262 publications screened on full text level of which 18 studies met the inclusion criteria, mainly from the US and Europe. A minority of the studies featured interventions based on life skills; only two studies were identified in which all three fields of activity are explicitly combined. Approaches targeting structures and conditions were rare. The school was the predominant setting.

Discussion/ Conclusions

In contrast to the frequent calls for interventions combining all three fields, the number of evaluated interventions published is surprisingly low. Studies were mainly excluded due to missing control groups or follow-up. Generally, there is insufficient rigorously evaluated data available to substantiate the demands for integrated interventions in the three areas and to provide evidence for the sustainability of any effects of such interventions.

Key messages

- The Review gives an overview of current studies including interventions linking Diet, Physical Activity and/or Life Skills as key areas for prevention and health promotion for children and teenagers
- In contrast to the frequent calls for combined approaches in Diet, Physical Activity and Life Skills, the number of evaluated interventions published is surprisingly low and significant effects rare

5.O. Pitch presentations: Health promotion: practice & policy

Inter-administrative coordination in psychological first aid

Anna Loste

P Batlle[1], *J Frau*[2], *A Loste*[1]
[1]Dipsalut, Public Health Agency within the regional government of the Diputació de Girona, Girona, Spain
[2]Axios Psycho-Medical Institute, Girona, Spain
Contact: aloste@dipsalut.cat

Problem

In exceptional traumatic situations, the damage caused must be minimised and people must be provided with the tools to face the painful process they are experiencing, so that they can regain control over their lives as soon as possible.

Problem:

The strategy to face the problem was providing 24/7 specialised psychological help to the victims of traumatic events, training first response professionals (police force, fire brigade, civil protection…) in psychological management in emergences and promoting the coordination among the various responsible agencies and authorities.

An inter-administrative coordination protocol has been established involving: Emergency Medical Service, police, institute for healthcare, Red Cross and Dipsalut in order to create synergies and avoid overlapping services. When the programme is activated, psychologists from Dipsalut specialising in emergencies travel to that particular place to assist the victims. Their scope of work includes both individual and collective treatment of the victims who are directly affected and/or their families and, where appropriate, the first response professionals.

Dipsalut also provides training aimed at the members and managers of intervention teams with a participative and hands-on methodology.

Results

Since its implementation in 2010, there have been 56 interventions that helped about 470 people. From these interventions, 44% were aimed at assisting the families of people who died suddenly and traumatically; 23% at the victims of violent crimes, and the others revolved around different traumatic experiences.

In parallel, during the 13 editions of this course, 70 managers and 176 members of first intervention teams have received training.

Lessons

Both the coordination between the local and regional authorities and intervention teams training have created synergies which have improved the service provided to victims of traumatic events.

Key messages

- The coordination between the local and regional authorities has created synergies which have improved the service provided to victims of traumatic events
- The managers and members of first intervention teams are provided with more resources as a result of their participation on the courses

How do local actors perceive health within a multisectoral program addressing living conditions?

Cécile You

C You[1], F Simons, M Porcherie[1], F Azzedine[1,2], E Breton[1,2]
[1]EHESP Rennes, Sorbonne Paris Cité, Franc
[2]CNRS, UMR CRAPE Centre de Recherches sur l'Action Politique en Europe – 6051, France
Contact: cecile.you@ehesp.fr

Social inequalities in health (SIH) reduction require reinforcing actors' capacity to improve the people's daily living conditions. One obstacle is the lack of awareness of the impact of those social determinants of health (SDOH) on health. International studies highlight the tendency of decision-makers to cast responsibilities of health on individuals. In this study, we explore the perceptions of local actors and report on the impact of a program intended to address such perceptions hence contributing to a growing field of research. This study is embedded in an interventional research project "Ensemble la santé pour tous en Pays de Redon-Bretagne Sud" being carried in southern Brittany since 2012.The interventional part entailed the setting-up of a multisectoral committee of local elected officials, professionals and NGOs members ($N = 43$) meeting every 2 months to discuss topics as SDOH and drivers to inequity in health. 24 individual semi-structured interviews were conducted (March/May 2013) to capture actors' perceptions about health, SIH and their perceived roles in health. A directed content and a thematic analysis were performed on the transcripts.

Six months into the program, respondents saw health as a multifaceted concept and demonstrate an acute awareness of the influence of living conditions on health and SIH. These perceptions weren't attributed to the program influence, but to their personal and professional experiences. Interviewees reported numerous initiatives which they wished to develop further (partnership, advocacy, etc.).

While a component of the program was to increase awareness and knowledge on the impact living conditions have on equity in health, its main contribution lies elsewhere i.e. providing local actors a rationale legitimizing their role as health actors and enabling them to advocate for change. In clear contrast with other similar studies, these findings call for further research on the levers supporting local action on the SDOH.

Key message

- Beyond well informed perceptions, addressing the social determinants of health is also asserting the legitimacy of non-health actors in claiming their contribution to the population health

Integrating public health in the health care system. Health Providers Agreement (HPA) in Catalonia

Francesc Güell Viaplana

F Guell[1], A Duenas[1], E Martin[2], M Botta[2]
[1]Barcelona Health Region. Catalan Health Service (CatSalut), Spain
[2]Fundació Hospital Granollers, Catsalut, Spain
Contact: fguell@catsalut.cat

Introduction

Health promotion strategy in Catalonia is carried out throughout various Government institutions and contracted by the Catalan Health Service through healthcare providers. To implement this strategy, which is defined by the Catalan Health Plan and The Interdepartmental Public Health Plan guidelines, a setting of priorities and coordination of activities are needed among these healthcare providers.

Methodology

The present communication is the descriptive analysis of how the HPA, in the Vallès Oriental Area (439,521 inhabitants), has become a useful tool to unify priorities and actions. This assessment will evaluate the strategy and will describe implementation proposals.

Results

According to the Health Providers Agreement, the following programs were developed in 2014 in Vallès Oriental: Smoking Cessation Program at Schools and Sport Centers Sourroundings (implemented by 7 Primary Health Care Teams, 9 municipalities, 1 mental health provider, with close support of the Catalan Health Department); "We love Eating'. program to improve nutrition among children (carried out by 4 Primary Health Care centers, 1 hospital and 1 municipality); Physical Activity, Sport and Health Program "PAFES" to promote exercise among the population (with the implication of 19 Primary Health Care Teams, 42 municipalities and the close support of the Catalan Health Department and Government Sports Office).

Conclusions

A good level of implication of Primary Health Care, Mental Health and Acute Care Providers was achieved on Health Promotion in 2014, but the level of implication was variable depending on each Program. Therefore, a higher health services implication on the pursue of public health strategic objectives was needed. To advance on it, at the end of 2014, the Catalan Health Service has added these goals into the HPA and the providers contract. Currently, we can already establish that these have been useful to evidence higher degrees of institutional and professional collaboration.

Key messages

- Health Providers Agreement and the Government incentives within the providers' contracts are both necessary to effectively implement public health promotion in big areas with diversity of institutions
- Municipalities must be considered a necessary part on the public health promotion strategies. Health care providers and they must be part of any strong integrated strategy within the community

Health in All Policies: a study of the public health coordinators' role in Norwegian municipalities

Susanne Hagen

S Hagen[1], M Helgesen[2], S Torp[1], E Fosse[1,3]
[1]Department of Health Promotion, Buskerud and Vestfold University College, Norway
[2]Norwegian Institute for Urban and Regional Research, Norway
[3]Department of Health Promotion and Development, University of Bergen, Norway
Contact: susanne.hagen@hbv.no

Aims

Public health coordinator (PHC) is a municipal-government position in Norway whose role is to organize and oversee municipal policies and functions to support national public-health goals. This cross-sectional study investigates conditions associated with use of PHCs by Norwegian municipalities in the period immediately before the new Public Health Act came into effect in 2012, decentralizing responsibility for citizen health to the municipal level. This study provides descriptive baseline data regarding Norwegian municipalities' use of PHCs in this time — a marker for municipal engagement with intersectorial collaboration — before this policy was nationally mandated, and explores whether municipal characteristics such as structure, socioeconomic level, and extent of Health in All Policies (HiAP) implementation were associated factors.

Methods

All Norway's municipalities (N = 428) were included. We combined Norwegian register data with survey data, collected during autumn 2011 and spring 2012. Descriptive analyses and bi- and multivariate logistic regression analyses were performed.

Results

76% of Norwegian municipalities employed a PHC in the period just before 2012. 22% of the PHCs were employed full-time and 28% were located within the staff of the chief executive office. Our study indicates that partnership for health promotion with county councils (OR 7.78), development of a health overview (OR 3.53), collaboration with non-government sectors (OR 2.85), and low socioeconomic status (OR .46) are significantly associated with Norwegian municipalities having a PHC.

Conclusions

This study suggests that the municipality's implementation of HiAP, as well as lower socioeconomic indicators, is associated with the use of PHCs in Norway, but not factors related to municipal structure.

Key messages

- The results can help policy makers refine HP strategies -and the role of the PHC in realizing them- especially in cases where public-health responsibility is devolved to the municipal level
- Overall, we found that municipal political structure was not associated with employment and use of PHCs, whereas implementation of HiAP principles was strongly associated

A Scoping Study of Health Promotion in the Nursing Home Setting

Tannys Helfer

T Helfer[1], K Sommerhalder[1], J Schols[2], S Hahn[1]
[1]Applied Research & Development in Nursing, University of Applied Sciences, Berne, Switzerland
[2]Department of Health Services Research, Caphri - School for Public Health and Primary Care, Maastricht University, The Netherlands
Contact: tannys.helfer@bfh.ch

Background

Nursing homes (NHs) in many countries follow the medical model of care, which can compromise basic human rights and liberties. Moving away from a medical model of care to one in which the well-being of the NH resident is central and in which active aging is embraced, requires a health promotion (HP) framework. It was explored which HP approaches currently exist for the NH setting.

Methods

A scoping study was conducted to review the international scientific literature from 2003 to 2013. The Integrated Model of Population Health and Health Promotion was modified to analyze publications. Ottawa Charter strategies (OCS), population health levels, determinants of health/social determinants of health (DOH/SDOH), and key HP principles were assessed.

Results

54 publications, categorized under the main approaches of ecological, person-centered care, relationship-centered care and workplace health promotion, applied HP in NH setting. Although most approaches had not labelled HP specifically, all approaches did apply HP through the OCS of creating supportive environments and of re-orienting health services and most recognized the importance of the DOH/SDOH of governance, physical and social environment. The OCS of developing personal skills for staff was less frequently targeted and strengthening community action, building healthy public policy were seldom targeted.

Conclusions

This study reveals that HP was applied in the approaches. However, it was often not recognized as HP and the HP framework was under-utilized. Therefore, the approaches maximal effectiveness and full potential were not reached. Recognition and implementation NHs as a viable new setting (Health Promoting Nursing Homes) under the settings approach, would assist in improving the well-being of residents and in ensuring a healthy workplace for the staff at local, national and global levels.

Key messages

- Health promotion offers a systematic framework to improve the well-being of residents in nursing homes
- Promising approaches exist which apply HP to NH setting

Perceived barriers of stakeholders at secondary schools without an outdoor school ground smoking ban

Andrea Rozema

AD Rozema[1], JJP Mathijssen[1], MWJ Jansen[2,3], JAM van Oers[1,4]
[1]Tranzo, Tilburg University, Tilburg, The Netherlands
[2]Academic Collaborative Centre for Public Health Limburg, Public Health Service South Limburg (GGD ZL), Geleen, The Netherlands
[3]Department of Health Services Research, School for Public Health and Primary Care CAPRHI, Maastricht University, Maastricht, The Netherlands
[4]National Institute for Public Health and the Environment (RIVM), Bilthoven, The Netherlands
Contact: a.d.rozema@tilburguniversity.edu

Background

Tobacco use is a major public health problem. Studies have shown that smoking bans help improve the health of the general population. Where smoking bans at secondary schools in buildings is more international widespread, smoking bans at outdoor school grounds are less common. The question arises as to what keeps secondary schools from adopting an outdoor school ground smoking ban. The aim of this study was to gain an in-depth understanding of the perceived barriers of stakeholders at secondary schools without an outdoor school ground smoking ban.

Methods

Qualitative data were obtained from 60 respondents of 15 schools. Semi-structured interviews were carried out with different stakeholders: directors, non-teaching staff, teachers, parents and students. Data were recorded and interviews were transcribed verbatim. Subsequently transcripts were analyzed using the General Inductive Approach. Member checks were conducted and inter-rater reliability was strengthened by comparing coding's of two independent coders for agreement.

Results

The analyses showed that the perceived barriers can be distinguished in four categories: barriers of the user (e.g. lack of support), organizational barriers (e.g. decision-making process), barriers to innovation (e.g. complexity) and political barriers (e.g. legislation). More results will be presented in detail.

Conclusions

This study gives an in-depth understanding of the perceived barriers of stakeholders at secondary schools without an outdoor school ground smoking ban and can provide practical tools which can be used in school health promotion policies.

Key messages

- The findings makes an important contribution to the health of the general population
- The findings provides more understanding of and will help health professionals and policymakers to better support schools which may result in more outdoor school ground smoking bans

Cannabis is not used as craving self-medication during methadone maintenance treatment

Catherine Marimoutou

C Marimoutou[1], A Mayet[1], C Lions[2], P Roux[2], M Mora[2], G Maradan[2], A Morel[3], L Michel[4], MP Carrieri[2]
[1]Centre d'épidémiologie et de santé publique des armées, Marseille, France. SESSTIM-UMR 912, Aix-Marseille université, Marseille, France
[2]SESSTIM-UMR 912, Aix-Marseille université, Marseille, France
[3]Oppelia, Paris, France
[4]Centre Pierre Nicole, Paris, France
Contact: marimoutouc@aol.com

Introduction

Concurrent cannabis use is very frequent among opioid users on methadone maintenance treatment (MMT). The aims of this study were to describe variations in cannabis use and its determinants among a population of MMT patients, and to evaluate whether this population self-medicates to manage craving.

Methods

The sample included 188 opioid-dependent individuals who initiated MMT and were prospectively followed for 12 months. Cannabis use was monitored at enrollment and at months 3, 6 and 12. The relationships between cannabis use level (non-daily use and daily use vs. no use in the previous month) and its determinants (socioeconomic factors, substance use characteristics and mental health) were explored using mixed multinomial logistic regressions.

Results

No significant variation trend in cannabis levels was observed during the follow-up period ($p = 0.85$). In multivariate analysis, the following factors were associated with non-daily use: age (odds ratio (OR) = 0.85 per 1-year increase, $p = 0.001$), opioid use (OR = 3.11, $p = 0.01$) and gender (OR = 0.15 for females vs. males – $p = 0.04$). Factors decreasing the risk of daily cannabis use were age [OR = 0.85 – $p = 0.001$) and high school certificate (OR = 0.24 – $p = 0.03$), while opioid use (OR = 2.58 – $p = 0.04$) and the number of health problems reported (OR = 1.12, $p = 0.004$) increased it.

Conclusions

Cannabis use during MMT more likely reflects a pre-existing common liability to addiction than a self-medication practice aimed at managing MMT adverse events. Consequently, although the literature would suggest that cannabis use is not associated with poor treatment outcomes, MMT patients who concurrently use cannabis should first be treated as polysubstance abusers.

Key messages

- Cannabis use is not used as subtitute during methadone maintenance treatment. Its use did not increase during the program follow-up
- Daily cannabis and opoid use were associated. Cannabis use during MMT more likely reflects preexisting liability to polydrug use and should be managed in consequence to avoid poor treatment outcome

5.P. Pitch presentations: Health services for vulnerable groups

Effect of restricting access to health care on health expenditures among asylum-seekers in Germany

Kayvan Bozorgmehr

K Bozorgmehr[1], O Razum[2]
[1]Dept. of General Practice & Health Services Research, University Heidelberg, Heidelberg, Germany
[2]Dept. of Epidemiology & International Public Health, School of Public Health, Bielefeld University, Bielefeld
Contact: kayvan.bozorgmehr@med.uni-heidelberg.de

Background

Access to health care for asylum-seekers and refugees (AS&R) in Germany is initially restricted before regular access is granted, allegedly leading to delayed care and increasing costs of care. We analyse the effects of (a) restricted access; and (b) two major policy reforms (1997, 2007) on incident health expenditures for AS&R in 1994–2013.

Methods

We used annual, nation-wide, aggregate data of the German Federal Statistics Office (1994-2013) to compare incident health expenditures among AS&R with restricted access (exposed) to AS&R with regular access (unexposed). We calculated incidence rate differences (ΔIRt) and rate ratios (IRRt), as well as attributable fractions among the exposed (AFe) and the total population (AFp). The effects of between-group differences in need, and of policy reforms, on differences in per capita expenditures were assessed in (segmented) linear regression models.

Results

The exposed and unexposed groups comprised 4.16 and 1.53 million person-years respectively. Per capita expenditures (1994-2013) were higher in the exposed group in absolute (ΔIRt = 375.80 Euros [375.77; 375.89]) and relative terms (IRR = 1.39). The AFe was 28.07% and the AFp 22.21%. Between-group differences in mean age and in the type of accommodation were the main independent predictors of between-group expenditure differences. Need variables explained 50–75% of the variation in between-group differences over time. The 1997 policy reform significantly increased ΔIRt adjusted for secular trends and between-group differences in age (by 600.0 Euros [212.6; 986.2]) and sex (by 867.0 Euros [390.9; 1342.5]). The 2007 policy reform had no such effect.

Conclusion

The cost of excluding AS&R from health care appears ultimately higher than granting regular access to care. Excess expenditures attributable to the restriction were substantial and could not be completely explained by differences in need. An evidence-informed discourse on access to health care for AS&R in Germany is needed; it urgently requires high-quality, individual-level data.

Key messages

- The cost of restricting access to health care among asylum-seekers appears higher than granting regular access
- An evidence-informed discourse on access to health care for asylum-seekers is needed

Proposal of a prediction model for re-hospitalization within 30 days after discharge

Francesca Casalini

F Casalini[1], S Salvetti[1], S Memmini[1], E Lucaccini[1], G Massimetti[2,3], GP Privitera[1,3]
[1]Department of Translational Research and New Technologies in Medicine and Surgery, University of Pisa, Italy
[2]Department of Clinical and Experimental Medicine, University of Pisa, Italy
[3]Azienda Ospedaliero Universitaria Pisana, Pisa, Italy
Contact: casalinifrancesca@gmail.com

Background

The increase of repeated admissions is a relevant phenomenon in many health organizations; several studies have already been made on this topic. The objective of our study was to evaluate the burden of unplanned readmissions within 30 days after discharge, related to resident population referring to the Azienda Ospedaliero Universitaria Pisana (AOUP), with the aim to develop a predictive model about risk of re-hospitalization.

Methods

This study was a retrospective cohort study. Patients residing in the territory covered by the local health organization with at least one unplanned hospitalization leading to a medical Diagnosis Related Group (DRG) in the calendar year 2012 were included. The data used for the study were extracted from the hospital discharge records database. Multivariate statistical analysis was used. The effect of age, sex, length of stay, number of diagnoses, number of admissions made in the year (normalized) and presence of diseases, on the probability of re- hospitalization within 30 days after discharge was evaluated.

Results

The significant variables included in the predictive model are age (B = 0.018, E.S. = 0.004, O.R. = 1.018, 95% CI = 1.011-1.026), normalized number of admissions (B = 0.229, E.S. = 0.013, O.R. = 1.257 95% CI = 1.225-1.290), number of diagnoses (B = 0.267, E.S. = 0.054, O.R. = 1.306, 95% CI = 1.174-1.452) and presence of cancer diagnosis (B = 0.392, E.S. = 0.157, O.R. = 1.479, 95% CI = 1.088-2.011). The model has good predictive accuracy (sensitivity = 24.8%, specificity = 99.1%, positive predictive value = 78.3%).

Conclusions

The model developed by the AOUP could be easily applied when discharging patients who have been hospitalized after an access to the Emergency Department in order to predict the risk of re-hospitalization within 30 days.

Key messages

- The variables that are predictive for re-hospitalization within 30 days after discharge are age, normalized number of admissions, number of diagnoses and presence of cancer diagnosis
- Our predictive model could be easily used, at the time of patient discharge from the hospital, in order to identify those at high risk of unplanned admissions and to improve the continuity of care

Access to cardiac rehabilitation for non – native speaking patients

Hanne Winther Frederiksen

HW Frederiksen[1,2,3], M Norredam[1,4], AD Zwisler[5]
[1]Research Centre for Migration, Ethnicity and Health, University of Copenhagen, Copenhagen, Denmark
[2]Herlev Hospital, Copenhagen, Denmark
[3]UCC, Hillerod, Denmark
[4]Hvidovre Hospital, Copenhagen, Denmark
[5]Knowledge Centre for Rehabilitation and Palliative Care, University of Southern Denmark, Copenhagen, Denmark
Contact: hafe@sund.ku.dk

Background

There is evidence that participation in cardiac rehabilitation (CR) following an ischemic cardiac event is beneficial. Accordingly, clinical guidelines and the Danish Health Act entitle patients to rehabilitation at the hospital, in the municipality or shared between the two. Non – native speaking patients are known to face several barriers in accessing health care services, though in Denmark they have the right to interpretation. This study addresses the question whether non – native speaking patients, who are entitled to CR, are in practice referred or not.

Methods

The Danish Cardiac Rehabilitation Database performed a nationwide survey in 2013 and will repeat this survey during the summer 2015. Respondents in 2013 were health professionals in hospitals and municipalities.

Results from items related to access for non – native speaking patients are presented in numbers and frequencies.

Results

In the 2013 survey response rates were high (100 – 76 %), with the lowest in municipalities. Responding was mandatory for hospital based staff, but not in municipalities. At hospitals, seven (19%) of the cardiologist responded that CR was not offered to non –native speaking patients, and 10 (29%) of the nurses that they were not referred to patient education. Several open answers indicated that instead of education in groups, non – native speaking were offered individual programs, but that these were shorter. According to responses from municipalities, 13 (9%) did not offer CR to non – native speaking patients. A few responded that participation would rely on patients bringing their own interpreter.

Conclusions

Referral to CR seems to be depending on patients' language skills. There were no clear differences in access to municipality- and hospital based CR. For equity reasons, and according to guidelines and legislation, health professionals, administrators and policy makers must strive to include vulnerable patients, as those who are not native speaking.

Key messages

- Public health policies encourage participation in cardiac rehabilitation. Nevertheless, several patients, who are non-native speaking, are not referred to cardiac rehabilitation
- Health professionals, administrators and policy makers must seek to reduce barriers to health services for vulnerable groups, such as non-native speaking patients

Impact of the NHS Health Check on global cardiovascular risk, individual risk factors and prescribing

Kiara Chang

K Chang, JT Lee, M Soljak, A Majeed, C Millett
Department of Primary Care and Public Health, Imperial College London, London, UK
Contact: chu-mei.chang@imperial.ac.uk

Background

The National Health Service (NHS) Health Check programme is the largest cardiovascular risk assessment and management programme in the world. The aim of this research study was to assess the impact of the programme on changes in global cardiovascular disease (CVD) risk, individual CVD risk factors, and medication prescribing.

Method

Quasi-experimental difference-in-differences matching analysis comparing NHS Health Check attendees and non-attendees using retrospective electronic medical records obtained from 462 general practices participating in the Clinical Practice Research Datalink in England. A randomly selected sample of 138,788 patients aged 40–74 years eligible for a NHS Health Check between April 2009 and March 2013, were followed up to March 2013. Main outcome measure was global CVD risk score; secondary outcome measures were blood pressure, body mass index, total cholesterol, smoking prevalence, statin and antihypertensive prescribing.

Results

21.4% of the eligible population attended a Health Check in the first four years of the programme. Health Check attendance resulted in significant but modest decline in global CVD risk (−0.40%, 95% confidence interval −0.42 to −0.38) relative to non-attendance. Reduction in risk was larger in patients who were at high CVD risk (global risk score≥20%) pre-intervention (−0.64%, −1.05 to −0.23), than in patients who were at median (10–20%) or low (<10%) CVD risk pre-intervention (−0.50%, −0.58 to −0.42 for median risk, and −0.22%, −0.24 to −0.20 for low risk respectively). However the programme had no significant impact on smoking prevalence (−0.10%, −0.34 to 0.14) and statin prescribing remained low (36.4% among attendees at high CVD risk) after the Health Check.

Conclusions

The NHS Health Check programme has had a modest beneficial impact on global CVD risk among attendees. Low attendance, suboptimal prescribing of statins and unchanged smoking prevalence suggests that programme performance needs to improve substantially to achieve anticipated public health benefits.

Key messages

- The NHS Health Check programme has led to modest reductions in global CVD risk among attendees
- Programme performance needs to improve substantially to achieve anticipated public health benefits

Education and 30-days outcomes after hospitalization for acute myocardial infarction in Italy

Gianluca Cafagna

G Cafagna, C Seghieri
Laboratorio Management e Sanità Istituto di Management, Scuola Superiore Sant'Anna, Pisa, Italy
Contact: g.cafagna@sssup.it

Background

Socioeconomic status affects health care outcomes after Acute Myocardial Infarction (AMI). There is an increasing interest toward short-term mortality and readmission after hospitalization for AMI, since they proved to be valid and reproducible quality measures of hospital performance. However, to the best of our knowledge, no study has been published on education and short-term readmission in Europe. The objective of this study is to examine the association between educational status at individual level and 30-days mortality and readmission among patients hospitalized for AMI in Tuscany (Italy).

Methods

A retrospective cohort study using data from hospital discharge records was conducted. The analysis included all patients discharged with a principal diagnosis of AMI between January 1, 2011 and November 30, 2014 from any hospital in Tuscany. Education was categorized as low (no middle school diploma), medium (middle school diploma) and high (high school diploma or more). Three multilevel models were fitted, sequentially controlling for patient-level socio-demographic and clinical variables and hospital-level variables. Patients were stratified by age (≤75 and >75 years).

Results

Mortality analysis included 24.498 patients, readmission analysis 23.159 patients. In either unadjusted or full-adjusted models, patients with high education had lower odds of 30-days mortality compared to those patients with low education in both age groups (OR age≤75 years 0.64, 95% CI:0.46-0.90; OR age>75 years 0.70, 95% CI:0.53-0.92). In regard to 30-days readmissions, only patients aged more than 75 years with high education had lower odds of short-term readmission compared to those patients aged more than 75 years with low education (OR 0.73, 95% CI:0.58-0.93).

Conclusions

Among patients hospitalized in Tuscany for AMI, individual level of education was associated with 30-days mortality for both age groups and 30-days readmission only among patients older than 75 years. Policy makers, especially in universal health care systems, and hospital managers should be more sensitive to low educated patients in order to improve short-term performance outcomes after hospitalization for AMI. In this perspective, promoting healthier life style and providing post-hospitalization support to less educated patients may improve 30-days outcomes and reduce rehospitalisation costs.

Key messages

- Patients with low education are more likely to die and to be readmitted during the 30-days following hospitalization for AMI compared to patients with high education in Tuscany (Italy)
- Public health leaders and hospital managers should pay more attention on socioeconomic factors and promote strategies sensitive to patients with low educational level after hospitalization for AMI

Health and access to care in vulnerable populations in Europe: the 2014 Doctors of the World survey

Pierre Chauvin

C Vuillermoz, N Simonnot, F Vanbiervliet, M Vicart, P Chauvin
INSERM, Sorbonne Universités, UPMC Univ Paris 06, UMRS 1136, IPLESP, ERES, Paris, France
Doctors of the World International Network, 75018 Paris, France
Contact: pierre.chauvin@inserm.fr

Background

Since 2006, the Doctors of the World – Médecins du monde (MdM) International Network Observatory has been conducting multicenter surveys in Europe among vulnerable people – the vast majority of whom are immigrants – who go to MdM national programs, in order to describe their social and health-related characteristics and the obstacles to access to care, with the goal of informing the public authorities and European institutions and bringing about positive changes.

Materials and Methods

A cross-sectional analysis of routine data collected from 23,341 patients during 43,152 social and medical consultations at MdM healthcenters in 26 cities in 11 countries in 2014 (Belgium, Canada, France, Germany Greece, the Netherlands, Spain, Sweden, Switzerland, Turkey and United Kingdom). An analysis of the legislative context regarding access to care was made.

Results

This population consisted mainly of undocumented immigrants, although 30.7% of the patients were nationals in Greece, 16.5% were nationals in Germany, and 15.6% were European Union migrants. Of the patients seen in Europe, 62.9% did not have any health coverage. The obstacles to access to care were mainly financial, administrative or related to a lack of knowledge about their rights and about the healthcare system, or to a language barrier. The immigrants interviewed had been living in their host country for an average of 6.5 years. Only 3% of them cited health as one of the reasons for immigrating, and only 9.5% of those with a chronic disease knew about it before migrating.

Discussion

The populations seen by MdM live in particularly disadvantaged conditions throughout Europe. They need more (and certainly not less) protection and to be given easier access to care. There is no tangible argument or public health justification for using health and health care policies as means of regulating migration flows.

Key messages

- The populations seen by MdM live in particularly disadvantaged conditions throughout Europe. They need more (and certainly not less) protection and to be given easier access to care
- Health and health care policies must not be used as means of regulating migration flows

The association between experienced discrimination and forgone care among chronically ill in Germany

Julia Röttger

J Röttger, J Köppen, M Blümel, R Busse
Department of Health Care Management, Berlin Centre for Health Economics Research, TU Berlin, Germany
Contact: julia.roettger@tu-berlin.de

Background

Not to seek health care although one feels that care is needed (forgone care), is influenced by various factors, on system and on individual level. One possible factor are negative experiences with health care, e.g. perceived discrimination. Yet, the association between negative patient experiences and forgone care has hardly been explored.

Methods

Within the study ''Responsiveness in ambulatory care'' 15,565 chronically ill (coronary heart disease and/or type 2 diabetes) were surveyed in 2013 in Germany. The survey comprised questions on forgone care, experienced discrimination when seeking care, net-income, subjective health status as well as subjective socioeconomic status (subSES). Survey data were linked on patient-level with administrative claims data by a German sickness fund. We applied multivariate binomial logistic regression analyses to assess the association between experienced discrimination and reported forgone care, while controlling for age, sex, comorbidities, region, subjective health status, subSES and net-equivalent income.

Preliminary Results

The majority in the sample are men (71.4%) and the average age is 69.4 (SD: 10.2) years. 2,192 (14.1%) persons reported forgone care, while 3,711 (23.8%) of 15,565 study participants experienced discrimination. In the multivariate model, we find a strong association between reported discrimination and forgone care (OR: 4.7 95% CI: 4.2-5.2) with individuals with a reported discrimination having higher odds for reporting forgone care after controlling for the variables listed above.

Conclusions

The results indicate a strong association between negative experiences (i.e. perceived discrimination) and forgone care. Thus, negative patient experience can be regarded a barrier for health care utilization. This is consistent to previous studies, which reported an association between patient satisfaction and compliance.

Key messages

- Forgone care can be influenced by various factors, on system as well as individual level
- On individual level, negative experiences with health care are strongly associated with forgone care

PARALLEL SESSION 6

Friday 16 October 2015 16:20–17:20

6.A. Pitch presentations: Global Health issues for policy making

Serious gaming as a support tool for evidence-informed policy making

Jan Jansen

F den Hertog[1], I van de Goor[2], H van Oers[1], H Spitters[2], J van Loon[1], J Jansen[3], C Schoemaker[1], A Dorgelo[3]
[1]RIVM, Bilthoven, The Netherlands
[2]Tranzo, Tilburg University, Tilburg, The Netherlands
[3]CBO, Utrecht, The Netherlands
Contact: j.jansen@cbo.nl

Evidence informed policymaking asks for supportive tools in the policy making process. In the Netherlands public health policy making and implementation mainly takes place at local level. By the Public Health Act local authorities are responsible for writing and implementing Local Health Memoranda within the framework of national public health priorities as set by the Ministry of Health. Both national and local priorities need to be based on epidemiological evidence with regards to the population's health and main health determinants. To date explicit included evidence in policy making is limited though. However, in addition to epidemiological information other sources of information and evidence as well as specific contextual aspects are also of influence on the decision making in local public health policy making.ss

To enhance evidence-informed policy making on national level the National Institute on Public Health and the Environment (RIVM) every four years produces the Public Health Status and Foresight report (PHSF), containing epidemiological and other research evidence on health status and determinants of health. To stimulate this evidence to be taken up in policy making at the local levels a serious game was developed together with the latest PHSF report (http://www.eengezondernederland.nl/en/English_version). The game is meant for stakeholders and public health decision makers on different levels (national, regional and local) and from all relevant disciplines (policy-makers, professionals and researchers). The focus is mainly strategically oriented on the four societal challenges that can underpin the prioritization of public health policy decisions.

An integrated, cross-sectoral approach using the best evidence available is seen in literature as most effective. To stimulate evidence-informed policy implementation on municipality level networking and collaboration between all relevant stakeholders is a necessary condition. To enhance this, a serious game In2Action was developed in the context of a FP-7 project (REPOPA; www.repopa.eu).

Both games, that focus on different levels of decision making and on different stages, are now being integrated into one game. It will be piloted in five Dutch municipalities where both prioritizing followed by the implementation of policy is tested among stakeholders involved in the real life policy context.

Key messages

- Serious games can facilitate collaboration in the development and effectuation of health policy

Couple partners – different perception of the inside domestic violence?

Marcelina Gabriela Mihai

IM Prejbeanu[1], MG Mihai[1], ML Cara[2]
[1]Environmental Health Department, University of Medicine and Pharmacy of Craiova, Romania
[2]General Directorate of Social Assistance and Child Protection of Dolj County, Romania
Contact: marcygmihai@yahoo.co.uk

Domestic violence is of public concern; it can take different forms, from physical, psychological and sexual violence to economic deprivation and isolation. It represents one of the most common forms of violence against women, with harmful consequences on their health, safety, well-being or even life. The possible causes of domestic violence include alcohol and drug abuse, poverty and unemployment, having oneself been a victim of some form of violence, a low level of education or even religious beliefs.

In this context, we interviewed 562 people (281 couples) about violent behaviours in their former and present families, using a 14-itemed questionnaire; there was no way that a spouse knew the answers given by his/her partner. Couples lived in urban or rural environments, had different educational level and belonged to various age groups.

A number of 115 women (40.9%) mentioned a violent behaviour of their partners; at the same time, 133 men (47.3%) accepted they were violent with their wives. In other words, partners of 96 couples (34.1%) offered contradictory answers regarding inside violence; in the other 185 couples both partners confirmed ($N = 76$) or infirmed ($N = 109$) the male violent behaviour. Non-violent men were born and grew up in non-violent families, while aggressive men – in violent families (statistically significant differences $\chi 2 = 82.9$, $p < 0.001$). The reported violence includes psychological (73.6%), physical (56.1%), sexual violence (19%) and/or financial restriction (14.3%), more frequently present in couples living in villages, elementary educated and/or over the age of 50 ($p < 0.01$).

According to our results, women seem to be more shamed to recognize their partners' violent behaviour than they themselves are. Still affecting many women, domestic violence must be eliminated by strengthening legislation, creating educational campaigns, providing training to public officers including health care professionals.

Key messages

- Women seem to be more shamed to recognize their partners' violent behaviour than they themselves are
- Taking different forms, from physical, psychological and sexual violence to economic deprivation and isolation, domestic violence must be eliminated

Corporal Punishment Perceptions and Practices of Turkish Families, Ankara

Burcu Kucuk Bicer

B Kucuk Bicer[1], H Ozcebe[1], E Kose[2], O Kose[3], H Unlu[4]
[1]Public Health Department, Hacettepe University Institute of Public Health, Ankara, Turkey,
[2]Public Health Department, Hacettepe University Faculty of Medicine, Ankara, Turkey,
[3]Women Health Department, Yenimahalle Governmental Hospital, Ankara, Turkey,
[4]Epidemiology Department, Hacettepe University Institute of Public Health, Ankara, Turkey
Contact: drburcubicer@gmail.com

Background

Violence against children has been one of the important public health problems seen in Turkey as the other countries. Families should be responsible to protect their children from violence of the others such as relatives, teachers. On the other hand, violent behaviors of the families are also a treat to the children and in Turkey, there're a few studies on corporal punishment (CP) among families.

Purpose

The aim of this study is to define the perception and behaviors of the families on CP and to determine the affecting sociodemographical factors of CP practices.

Method: This descriptive research was conducted at one university an done govermental hospital in Ankara. The data was collected from 502 parents by using facetoface interview technique. The questionnaire had questions about practices, perspectives, norms and attitudes of CP. Ethical consent was taken from Hacettepe University Ethical Commission. Written consents were taken from both hospitals and oral consents of participants were taken.

Results

From the participants 52.2% at university hospital and 55.1% at government hospital declared CP. The percentage of accepted CP behaviors are found between 6.7%-40.6%; the most accepted perception was 'children are ineducable without fear of elders' and the least accepted one was ''You can slap a small child but not a big child''. The families also practiced CP as a diciplinary method. From the families, 66% of the families from at the university hospital, 34% from governmental hospital declared that they kicked the child from their head at least one time in the last month. The families who didn't declared PC practices explained the reasons of this violent behaviour as norms and values, education and cultural structure drug use of the parents and unconsciousness of the families.

Conclusion

CP was accepted as a violent behavior but according to our results families could accept it as a disciplinary method, in our study. This issue should be studied by comprehensive qualitative methods to find out the effects of norms and values of parenting.

Key messages

- CP is an important issue in Turkish families. Cultural and sociodemographical features affect parenting
- Violence awareness is an important way of protecting children from harmful practices like CP

Attributes of emergency medical care from patient perspective

Cornelia Henschke

CH Henschke, NB Baier, RB Busse
Department of Health Care Management, Technische Universität Berlin, Berlin, Germany
Contact: cornelia.henschke.1@tu-berlin.de

Background

Overcrowding and the inappropriate use of emergency departments are worldwide problems. In Germany, we observe, furthermore, an increasing number of patients in preclinical emergency medical service (EMS). Due to a shortage of physicians in rural areas and the increasing number of cases the EMS is faced with challenges. These aspects have been the center of public and political interest in the wake of the debate on ensuring preclinical emergency medical care. The study aims at exploring attributes that are relevant for rescues services from patient's point of view.

Methods

We conducted four focus groups of patients, who had used EMS (n = 30). These participants discussed their experiences and expectations concerning preclinical emergency medical care. Transcripts were coded and analyzed using Atlas.ti. After coding of the text passages, which facilitates comparison across interviews, a coding scheme was developed using qualitative content analysis The data was analyzed deductively (based on relevant literature) and inductively using directed content analysis.

Results

We identified attributes of the field of EMS from participants' point of view that are related to two subcategories: (1) organizational attributes and (2) attributes with regard to social competences of the EMS staff. Organizational attributes include e.g. the qualification of staff or time to arrival. The other attributes refer to aspects such as communication skills of the staff.

Conclusion

Results show that the time of arrival is one of the most important attributes concerning the EMS. However, attributes such as communication skills are also important. These results provide first indications for necessary prospective improvements in training contents of EMS staff in addition to medical contents. Explored attributes will be further used for a dicrete-choice-experiment to (1) analyze preferences of the German population and (2) provide valuable insights for the organization of the preclinical EMS.

Key messages

- The study provides expectations from patients' point of view preclinical EMS that go beyond organizational aspects
- Social aspects play also an important role for the provision of patients within the EMS and should be a part of training contents

Nicotine dependence and urinary nicotine, cotinine and hydroxycotinine levels in daily smokers

Ilse Van Overmeire

I Van Overmeire[1], T De Smedt[1], P Dendale[2], K Nackaerts[3], H Vanacker[4], J Vanoeteren[5], P Roosebrouck[5], F Achten[2], A Van Nieuwenhuyse[1], J Van Loco[1], K De Cremer[1]
[1]Scientific Institute of Public Health, Brussels, Belgium
[2]Jessa Hospital, Hasselt, Belgium
[3]University Hospital Gasthuisberg, Dpt of Pneumology, Leuven, Belgium
[4]IDEWE, External Service for Prevention and Protection, at work, Heverlee, Belgium
[5]Mensura, Hasselt, Belgium
Contact: ilse.vanovermeire@wiv-isp.be

Background

Nicotine dependence can be estimated with the Fagerström Test for Nicotine Dependence (FTND) consisting of 6 questions. Measurements of biomarkers in human samples provide an accurate measure of nicotine exposure. The nicotine metabolite cotinine is a good marker for exposure to tobacco.

Objectives

(1) To investigate the relationship between urinary levels of nicotine (NIC), its metabolites cotinine (COT) and hydroxycotinine (HCOT) and the calculated scores for the FTND among daily smokers and (2) To develop a model that explains the cigarettes per day (CPD) by including the levels of the biomarkers, the FTND score (without question 4 (giving info about CPD)) and age, gender and body mass index (BMI).

Methods

Smokers (n = 219) completed a questionnaire and provided a urine sample. Urinary levels of NIC, COT and HCOT were determined by online solid phase extraction (SPE) combined with ultra performance liquid chromatography (UPLC) coupled to tandem mass spectrometry (MS/MS). The relationship between NIC, COT & HCOT and separate FTND scores for the 6 questions was assessed with a multiple linear regression model. A second multiple linear regression model was developed with CPD as dependent variable and with independent variables age, gender, BMI, HCOT concentration and the score of the separate FTND questions (without question 4). Model fit for both models was assessed through adjusted R2.

Results

We found significant correlations between the biomarker concentrations, CPD and the FTND score. FTND questions 1 and 4 proved to be significant in explaining the biomarker concentrations. We were able to explain more than 51% of the variance of CPD where gender, smoking duration in years, HCOT concentration and FTND questions 1,2 and 6 are significant variables.

Conclusion

(1) There is a clear relationship between NIC, HCOT, FTND score and CPD. Especially FTND questions 1 and 4 are significant. (2) We developed a novel, significant regression model to explain CPD.

Key messages

- Knowledge about nicotine dependence of smokers is important to direct smoking cessation treatment
- The developed model may be useful for clinical research, focused on personalizing smoking cessation therapy

10-Year Risk Estimation for T2DM in Italy and Spain: Results from a community pharmacy-based project

Flavia Kheiraoui

F Kheiraoui[1], A Poscia[1], A Silenzi[1], A Scarpocchi[2], MP Garcia Delgado[2], M Mercati[3], G Ventriglia[4], R Zizza[3], M Avolio[1], W Ricciardi[1]
[1]Public Health Institute – Catholic University of the Sacred Heart- Rome, Italy
[2]Aboca S.p.A. – Sansepolcro, Italy
[3]Apoteca Natura S.p.A – Sansepolcro, Italy
[4]Italian Society of General Practitioner (SIMG) – Florence, Italy
Contact: flavia.kheiraoui@rm.unicatt.it

Background

Type 2 diabetes mellitus (T2DM), metabolic syndrome and their consequences are one of the major healthcare topics but effective screening interventions could reduce their related burden. Some seemingly healthy people couldn't have an early diagnosis because they haven't regular general practitioner (GP) examinations.

This study aims to describe the risk level for T2DM evaluated by the FINDRISC questionnaire in Italian (IT) and Spanish (SP) healthy people voluntary enrolled for the pharmacy-based project 'Ci sta a cuore il tuo cuore'.

Methods

The project was realized by the Apoteca Natura pharmacy network collaborating with university and scientific societies. On November 2014 about 26.000 subjects (19.467 IT and 6.352 SP) have been screened for cardiovascular (CVS) and T2DM risk through a validated questionnaire and the measurement of some clinical parameters (i.e. blood pressure) by around 3000 trained pharmacists in the over 700 Apoteca Natura pharmacies (530 IT and 185 SP). Differences between sex and countries were investigated through CHI2 test, while within countries through Kruskal-Wallis test.

Results

18562 IT and 5833 SP subjects were stratified according to FINDRISC risk to have T2DM in 10 years: 1.3% and 1.8% had very high risk ($>50\%$); 12.4% and 13.5% had high risk; 16.7% and 18.7% had intermediate risk; 41.8% and 41.2% had low risk; 23.0% and 23.1% had very low risk ($<1\%$) ($p < 0.01$). Results showed no relevant differences between males and females ($P = 0.266$) but wide and significant discrepancies within countries ($p > 0.01$). People with higher risk were addressed to GP and for people with intermediate or lower risk suggested appropriate lifestyle interventions.

Conclusions

FINDRISC is a simple and non-invasive screening tool to identify people with high risk for T2DM. It could be easy to use in pharmacies in order to strength and spread healthy lifestyles to reduce the burden of non-communicable disease.

Key messages

- Community pharmacies represent a great opportunity to identify high-risk groups that could benefit from intensive lifestyle intervention to prevent T2DM
- Cost-effective analysis of the implementation of this health promotion program should be performed to determine the real impact from the IT and SP National Health System point of view

Impact of Chronic Care Model determinants in multimorbid patients health plans: a systematic review

Emanuela Maria Frisicale

EM Frisicale[1], C De Vito[2], G Silvestrini[1], ML Rega[3], A Acampora[1], C Galletti[3], P Villari[2], W Ricciardi[1], G Damiani[1]
[1]Public Health Department, Università Cattolica del Sacro Cuore, Rome, Italy
[2]Department of Public Health and Infectious Diseases, Sapienza University of Rome, Italy
[3]School of Nursing, Università Cattolica del Sacro Cuore, Rome, Italy
Contact: emanuela.frisicale@gmail.com

Background

The co-occurrence of two or more chronic conditions within one person is continuously growing. Currently, healthcare is mostly characterized by fragmented interventions frequently addressing single chronic diseases. Chronic Care Model (CCM) is the forefather of disease management programs (DMPs) developed to deliver to chronic patients coordinated healthcare among several health services. A systematic review was carried out in order to evaluate the impact of Chronic Care Model determinants addressing patients with multiple chronic conditions.

Methods

The search was conducted by querying electronic databases and hand searching. Only studies concerning interventions belonging to structured health plan and addressing adults patients with long-term multiple chronic conditions were selected. Studies were divided in two groups depending on the inclusion of depression as comorbidity and in further subgroups according to the CCM dimensions interested. To describe the impact of CCM dimensions and to grade the strength of recommendations, the outcomes of the studies were grouped in macro-categories according to thematic topics.

Results

12 studies (8 trials and 4 observational) out of 7807 were included. The total sample regarded 57713 subjects. Years of publication were comprised from 2002 to 2012. 8 studies were set in USA and 4 in Germany, The Netherlands, Finland and Canada. Interventions attributable to Delivery System Design (DSD) and Self Management Support (SMS) as CCM dimensions were represented in all the selected studies. A positive impact on outcomes was observed in the subgroup including DSD, SMS and Clinical Information System (CIS) addressing depression and in the subgroup not addressing depression but including all the six CCM dimensions.

Conclusions

Delivering coordinated interventions attributable to minimum three CCM dimensions (DSD, SMS, CIS) seem to have a positive impact on healthcare addressing multimorbid patients.

Key messages

- Our research contributes to the debate on which healthcare interventions address multimorbid patients
- Health plans addressing multi-chronic patients include interventions attributable to Delivery System Design and Self Management Support as Chronic Care Model (CCM) dimensions

Academic municipality partnership advancing practice anchored research agenda

Jeanette Magnus

JH Magnus[1], MJ Leirbakk[1], J Torper[2], KE Sletnes[2]
[1]University of Oslo, Norway
[2]City Health Department of Oslo, Norway
Contact: j.h.magnus@medisin.uio.no

In Norway few municipalities initiate research. According to policy they have an accomplice liability, but no responsibility in financing or conducting research. Thus a limited amount of research is implemented on the municipality's premises.

How can an academic community partnership between the City Health Department and the University in Oslo facilitate and increase the participation of practitioners in all aspects of the research process?

The Municipality of Oslo and the University of Oslo signed partnership intent to encourage cooperation in research, education, personnel and service development and innovation. Needs assessment exploring the priority areas for collaboration and strengthening was undertaken. Ongoing and potential research projects and collaborative efforts were identified. A total of 12 cooperative research projects, all with a health perspective, have been initiated. Of these 6 are linked to PhD projects.

The largest public health project, ''New mothers'', is anchored in the municipality health service, based on the needs and challenges of the maternal and child population. Initially as pilot in one of the districts in Oslo, it is now supported by the city council and anchored in the administration. Employing community based participatory methods including all stakeholders in the district; the mothers, the Medical chief, the Mother and Child Health Care Service; we were able to design, implement and demonstrate the prospects of the project.

- Policy guides intent but not responsibility for conducting research at municipal levels in Norway.
- Academic community partnership facilitates community anchored research projects.
- Community based participatory methods facilitate design, implementation, support and success of research projects.

Key message

- Academic community partnership increases success of policy anchored public health research in the municipality enhancing efficacy and quality of health services

6.B Pitch presentations:Tobacco control in central and eastern Europe

Academic profile of the Romanian students and its influence on their attitude to smoking

Ileana Manoela Prejbeanu

IM Prejbeanu[1], S Sodoleanu[1], MG Mihai[1], A Dragomirescu[2]
[1]Environmental Health Department, University of Medicine and Pharmacy of Craiova, Romainia
[2]Emergency Hospital of Slatina, Romania
Contact: ileana.prejbeanu@gmail.com

The tobacco epidemic is one of the biggest public health issues nowadays; it affects not only tobacco users, but also second-hand smokers – people who do not smoke, but breathe the air polluted by tobacco smoke.

In this context, we asked 461 students, aged 20–22, males and females, studying Law, Business Administration, Electronics, Languages, Pharmacy or Dentistry, to answer a 21-item questionnaire referring to the presence of smokers in their families, their knowledge about the harmful effects of smoking and the signification of ''second-hand smoking'', their opinion about a Romanian regulation for smoke-free indoor public spaces, the reasons for smoking and the magnitude of the habit (only the smokers).

A number of 114 (24.7%) of the students are smokers; the differences among the subgroups are statistically significant ($p < 0.05$), with the lowest figures in Languages (11.11%) and the highest – in Law (35.3%). A smoker family is a risk factor for a youngster to also start smoking ($p < 0.05$). While 37 smokers (48.2%) dislike other tobacco users' smoke, the number of non-smokers mentioning discomfort in a smoking environment is much bigger ($N = 283$, 81.5% – $p < 0.001$). A number of 341 subjects (74%) correctly define ''the second-hand smoking'', with statistically significant differences among the subgroups ($p < 0.05$) - the lowest figures in Pharmacy (64.5%) and the highest – in Electronics (89.3%). If they had the legislative power, 320 students (69.4%), especially non-smokers (statistically significant differences $p < 0.001$), would vote a law for smoke-free indoor public spaces (a law, partially banning smoking in these places, exists in Romania, but only 217 students - 47% - know about it).

The results suggest a declining rate of tobacco use and an increasing number of Romanian students wishing smoke-free indoor public spaces. So the government must intensify its actions to dramatically reduce consumption of tobacco products and, in turn, to protect public health.

Key messages

- Too many people are still exposed to second-hand smoke in indoor public spaces
- Much more intense action is needed to combat the tobacco epidemic

The new Tobacco Control law - new challenges for healthcare system in Russia

Marine Gambaryan

M Gambaryan
Department for Primary Prevention in Healthcare, National Research Centre for Preventive Medicine, MoH Russian Federation, Moscow, Russia
Contact: mgambar@mgnicpm.com

The new comprehensive anti-tobacco law came into force 1 of June 2013 in Russia. Along with all measures – tax/price, smoke-free environments, advertisement bans, etc., the law regulates measures in education, communication, public awareness regarding smoking, and guarantees support in smoking cessation at health institutions, imposing those on healthcare system. Still little is known how well the health system meets the challenges of implementation of Tobacco Control(TC) policies.

We aimed to examine to what extent the tobacco control law is implemented with regards of rising public awareness for consequences of smoking and in provision of smoking cessation services.

The regional Coordinators in Preventive medicine of 42 Federal subjects (from 85) had fill out questionnaires regarding the process of TC law implementation in their regions, as part and the first step of TC policy evaluation program in Russia.

It was reported, that Regional legislative acts for implementing the National TC policy were adopted in 69% of Russian subjects.

50% of the interviewed regions had adopted Regional IEC strategies. Educational programs about consequences of smoking are integrated in curricula of most of educational institutions −78% of kindergartens, 92.5% secondary schools,100% of professional schools and universities (including medical universities).

Assistance for smoking cessation is now guaranteed by law under the national mandatory insurance plan. Brief smoking cessation advice should be provided by health professionals, regardless purpose of visit of the patient. Smoking cessation assistance including diagnosis and treatment of tobacco dependence and counselling are provided by Medical Prevention Departments and Offices as well as Smoking Cessation Offices (SCO), established in primary healthcare institutions.

However, the process of establishing SC Service is slow: about half of the regions have only up to 5 SCO, which is too few given the spread geography of Russian regions. Another problem is lack of trained personnel: 71%SCO are badly understaffed. 63% of regions had reported to have Quit Smoking Hotline, 34% use the National Hotline providing facilities for medical assistance of the patients.

The survey revealed high demand for SC services, for educated personnel providing SC assistance, and National guidelines for organising the work of SC Services.

Key messages

- The new Tobacco Control law in Russia imposes high demands on the Healthcare system in terms of public education and provision of smoking cessation support to population
- The healthcare system still needs established and well-functioning Smoking Cessation Services to meet the challenges of implementation of the new Tobacco Control law in the country

Smoking habits and attitudes towards patients' smoking among physicians in Estonia

Kersti Parna

K Pärna, M Raag, K Paapsi, R Reile
Department of Public Health, University of Tartu, Tartu, Estonia
Contact: kersti.parna@ut.ee

Background

Smoking surveys among physicians have proved useful in highlighting the importance of physicians as key agents in anti-smoking campaigns.

Aim of this study was to describe smoking among Estonian physicians and to analyse their attitudes towards patients' smoking.

Methods

List of working physicians was drawn from the Estonian Registry of Health Professionals and linked with Population Registry to receive home addresses for physicians. Final sample was restricted to the working physicians who had full home addresses in Estonia. Data were collected using self-reported questionnaires in 2014. Of 5666 potential respondents 2944 answered. Corrected response rate was 52.9%. Logistic regression analysis was used to measure association between smoking status and attitudes towards smoking of patients. Age-adjusted ORs and 95% CIs were calculated.

Results

Current smoking was 15.4% (95% CI 13.3–17.5) among male and 6.5% (95% CI 5.8–7.2) among female physicians.

During last week, 85.5% of male and 83.9% of female physicians asked from the patients about their smoking habits. Compared to non-smokers, smokers asked significantly less this question (OR = 0.55; 95% CI = 0.34–0.89 for males, OR = 0.57; 95% CI = 0.38–0.84 for females). Among males 65.6% and among females 51.4% had opinion that their knowledge are sufficient to advice a patient who wishes to stop smoking. No difference in this statement by smoking status was found. Smoking prevention should form part of the regular training of health professionals in opinion of 83.2% of male and 84.9% of female physicians. Compared to non-smokers, smoking females, but not males, agreed less often with this statement (OR = 0.63; 95% CI 0.42–0.94).

Conclusions

Compared to females, smoking was two times higher among male physicians. Nearly two third of physicians had in their opinion sufficient knowledge to advice patients who wish to stop smoking. Differences between smokers and non-smokers were found in attitudes towards patients' smoking.

Key messages

- Opinions of physicians towards patients' smoking remain a challenge to medical education on the field of smoking
- Smoking of physicians is associated with their attitudes towards patients' smoking

Tobacco use trends, uptake of cessation resources, and intervention by providers, Georgia, 2014

Marina Topuridze

M Topuridze[1], N Maglakelidze[1], L Starua[1], M Shishniashvili[1], CJ Berg[2]
[1]National Center for Disease Control, Tbilisi, Georgia
[2]Emory University Rollins School of Public Health, Atlanta, Georgia, USA
Contact: topuridze.marina@gmail.com

Background

In the growing tobacco epidemic worldwide, Georgia (current smokers 30%) is not an exception considering alarmingly increasing trend among youth and women. **Design/Methods**

The national household survey of 1163 Georgian adults aged 18–65 years was conducted in 2014 to estimate smoking related knowledge, behaviors and cessation practices in the country.

Results

In total, 43.1% (501) of participants were lifetime and 30.9% (359) current tobacco consumers. Females reported to start regular smoking relatively older ages compared to males (mean age 20.5 vs. 18.4 years, respectively p = 0.047). Prevalence of current smoking was significantly higher in males as compared to females (54.2% vs 6.5%, respectively p = 0.000). Current smokers were considerably less prevalent in regions outside of Tbilisi versus in Tbilisi (capital city with 1/3 of country population; 29.1% vs. 36.4% p = 0.013). With increasing age, the prevalence also increased reaching a peak in 35–44 years age group (38.5%) and declining thereafter. Among current smokers, the majority never expected (37.0%) or planned to quit in the next 6 months (47.3%). On a scale of 0 (not at all) to 10 (extremely), participants reported relatively low motivation to quit (5.8) and confidence (4.6) in quitting smoking. Overall, from 133 smokers who had seen a healthcare provider only 37.6% (50) reported that a HCP had ever talked to them about smoking, only 24.8% (33) received any advice to quit and 3.8% (5) were offered any help in their quit attempt.

Conclusions

Smoking is a pervasive public health issue among Georgian society as a whole, with certain socio-demographic groups such as men and those living in Tbilisi being at highest risk. Smokers reported low motivation and confidence in quitting smoking, and the healthcare system did not facilitate either their motivation or their confidence. On a society level, great efforts need to be made to curtail this increasingly concerning tobacco use epidemic in Georgia.

Key messages

- If proper cessation treatment is not provided and tobacco control policies are not well implemented, smoking-related health and economic consequences will become devastating for Georgia
- More health communication campaigns and education interventions with focus on high risk population are required to address the issue

Parental attitudes about children's alcohol and tobacco initiation in Estonia

Riina Raudne

R Raudne[1], K Abel-Ollo[2]
[1]Health Estonia Foundation, Estonia
[2]National Institute for Health Development , Estonia
Contact: riina.raudne@gmail.com

Problem

Early drinking initiation is a significant problem in Estonia. Parents' role in early drinking of alcohol has been implicated. Formative studies demonstrate that Estonian parents' attitudes about children's drinking can be permissive, but quantitative evaluations have been lacking.

Methods

As a baseline evaluation for a communication campaign targeting parents, a telephone survey was carried out with a nationally representative sample of parents of children aged 6–14 (n = 600) in Estonia in 2013.

Results

44% of the sample were men; 75% were native Estonian speakers, 25% spoke Russian as their first language. 26% of the respondents did not think that parents can influence children's drinking and smoking behavior. While 70% of respondents considered important to instruct children of the dangers of alcohol before the teenage years (before age 10), many parents suggested setting specific limits on alcohol and tobacco at a much later age, with 29% suggesting setting limits at 14 or after, 14% not knowing when to set limits. 34% of parents thought that it was an important preventive measure to offer children alcohol at home to reduce adolescent curiosity about drinking and 68% considered important to instruct children on how to minimize alcohol's harmful consequences. In general, respondents considered tobacco more harmful than alcohol and reported willingness to set stricter limits on tobacco than alcohol.

Conclusion

A large proportion of parents in Estonia have beliefs and attitudes that do not consider alcohol dangerous for adolescents and support early initiation of teen drinking. Large communication campaigns targeting parents could influence parental norms on alcohol-specific socialization.

Key messages

- A quarter of parents have low self-efficacy about alcohol and tobacco prevention
- Many parents set limits to children's drinking too late - almost a third of parents set specific limits to drinking only at 14 years of age

Patterns of nicotine dependence in current smokers in KardioVize study, Brno, Czech Republic 2013–14

Narine Movsisyan

NK Movsisyan[1], O Sochor[1,2], E Kralikova[1,3,4], R Cifkova[1,5], H Ross[1], F Lopez-Jimenez[2]
[1]International Clinical Research Center, St. Anne's University Hospital in Brno, Brno Czech Republic,
[2]Division of Cardiovascular Diseases, Mayo Clinic, Rochester, Minnesota, USA
[3]Institute of Hygiene and Epidemiology, First Faculty of Medicine of the Charles University and the General University Hospital in Prague, Czech Republic
[4]Centre for Tobacco Dependent of the 3rd Medical Department, First Faculty of Medicine of the Charles University and the General University Hospital, Prague, Czech Republic
[5]Center for Cardiovascular Prevention of the First Faculty of Medicine, Charles University and Thomayer Hospital, Prague, Czech Republic
Contact: narinekm@gmail.com

Background

Tobacco smoking is an addiction that causes excess mortality and morbidity globally. The level of nicotine dependence has shown to predict the success rates in smokers who attempt to stop smoking and knowing the individual level of dependence may help tailor treatments. The purpose of this study was to explore the level of nicotine dependence among current smokers in a cross-sectional survey in Brno, Czech Republic.

Methods

A population-based survey assessed cardiovascular risk factors in a stratified random sample of residents of Brno, Czech Republic, aged 25–64 (2013-2014). The study collected data on demographics and smoking status using a physician-administered questionnaire. We assessed the level of nicotine dependence among the current smokers (smoking daily or occasionally). The nicotine dependence was measured by the Fagerstrom Test for Cigarette Dependence (FTCD), a validated 6-item scored questionnaire (0-2 very low, 3–4 low, 5 moderate, 6–7 high, 8–10 very high). The analysis included descriptive statistics and Kruskal Wallis test.

Results

The study sample ($n = 2160$, 977 men) included 51.3% of never smokers, 21.9% current smokers, from which 18.9% smoked daily, and 26.8% past smokers.

Of 456 (out of 484) current smokers who responded to the FTCD questions, the majority (59.9%) had low nicotine dependence scores on the FTCD scale, followed by high (21.5%), moderate (14.5%), very low (2.6%), and very high (1.5%) score. The overall mean score was 2.6 ± 0.9. Male smokers had a significantly higher dependence score than female, 2.7 ± 0.9 vs. 2.5 ± 0.8, $p < 0.04$, and daily smokers had higher levels of dependence compared to occasional smokers with mean scores of 2.7 ± 0.9 vs. 2.1 ± 0.4, $p < 0.001$.

Conclusions

About a third of current smokers had moderate to high nicotine dependence based on the FTCD scale. This suggests that a significant number of current smokers may benefit from a combined approach using counselling and pharmacological aids in treating nicotine dependence.

Key messages

- This population-based study assessed the levels of nicotine dependence in the random sample of Brno residents using the Fagerstrom Test for Cigarette Dependence, a validated scored questionnaire
- The findings indicate that a significant proportion of current smokers in this population may benefit from a combined approach using counseling and pharmacological aids in treating nicotine dependence

Tobacco Control in Turkey: Story of Commitment and Leadership

Hilal Ozcebe

T Erguder[1], H Ozcebe[2], N Bilir[2], K Mauer Stender[3]
[1]WHO CO, Ankara, Turkey,
[2]Institute of Public Health, Hacettepe University, Ankara, Turkey:
[3]WHO Regional Office for Europe, Copenhagen, Denmark
Contact: hozcebe@hacettepe.edu.tr

Issue

Tobacco smoking continues to be the leading preventable cause of morbidity and mortality worldwide because more than five million deaths each year are attributed to tobacco use which translates to more than 100000 in Turkey. Although Turkey has had a long tradition of tobacco use and high smoking prevalence, particularly among men, has made substantial progress in tobacco control in a short time. The Description of the problem: Key Milestones on Tobacco Control in Turkey, 1996-First tobacco control Law 4207 on Prevention of Harms of Tobacco Products. November 2004-Turkey ratified WHO Framework Convention on Tobacco Control (FCTC). May 2008-Bill amending the law on prevention of hazards of tobacco products of 1996. July 2009–100% smoke-free law implemented including hospitality sectors. October 2010–Smoking cessation service launched including 171 Quitline and free distribution of medications. October 2011-Increase tobacco excise taxes for tobacco products (80.5% of retail price); 84.2% by January 2014. July 2012–Total ban on advertisement (including brand sharing and brand stretching) and increase pictorial health warnings to at least 65% of both sides. November 2014-Protocol to Eliminate Illicit Trade in Tobacco Products' sent signed by Council of Ministers and sent Parliament for Ratification. January 2015–New National Tobacco Control Programme and Plan of Action.

Results

Turkey was the first country to attain the highest level of coverage in all of the WHO ''best-buy'' demand-reduction measures for reducing tobacco prevalence. In 2012, the country increased the size of health-warning labels to cover 65% of the total surface area of each tobacco or cigarette packet. Tobacco taxes cover 80% of the total retail price, and there is currently a total ban on tobacco advertising, promotion and sponsorship nationwide. The result of these concerted efforts has been a significant decrease (13.4% relative decline - 13.5% for males; 13.7% for females) in the smoking rates of a country that has a long tradition of tobacco use and high smoking prevalence.

Lessons

This progress is a sign of the Turkish government's sustained political commitment to tobacco control, exemplifying collaboration between government, WHO and other international health organizations, and civil society.

Key messages

- This change resulted from the implementation of a comprehensive set of tobacco control policies and a national action plan.
- Turkey should continue its commitments in sustainable manner to implement strong tobacco control policies in order to further accelerate these encouraging trends

6.C. Pitch presentations:Public Health in minority populations

Stewardship as an ethical approach for evidence informed local policy making in the Netherlands?

Annemiek Dorgelo

A Dorgelo[1], *J Jansen*[1], *HPEM Spitters*[2]
[1]CBO, Utrecht, The Netherlands
[2]Tranzo Tilburg University, Tilburg, The Netherlands
Contact: a.dorgelo@cbo.nl

Considering ethical aspects such as needs, trust and leadership could enhance evidence informed policy making. In the Netherlands health care tasks are decentralized to local authorities affecting local communities, which could enhance the importance of these aspects. A Stewardship Approach takes ethical aspects into account. The ultimate concept is not yet available, however there are components which are considered important in literature. Those are used and translated in the FP7 REPOPA-project to two local policy cases in the Netherlands with the aim to test if and how a Stewardship Approach could contribute to local evidence informed policy making.

In line with the Stewardship Approach, methodological steps are developed and carried out from December 2012 until September 2015. The most important steps are a needs- and situation assessment, including needs of local stakeholders from policy-, care-, welfare- and sports professionals and volunteers. This information forms the basis for tailor made evidence informed policy activities for the two policy cases. Results of these activities are measured via a process evaluation and a pre-, post and post-post measurement.

Results show there is a need to build and strengthen local intersectoral networks, -trust and -information exchange on health topics. The importance of research information in policy making is generally accepted by the stakeholders (Pre:73%, N = 26/ Post:84%, N = 21), but a change in influence of research information in policy making could not be assessed during the limited course of the project. The influence of information of external stakeholders did increase though (Pre:20%, Post:29%).

Ethical aspects within an approach such as the Stewardship Approach are needed and could be beneficial for local informed policy making in the Netherlands. To have more impact on evidence informed policy making structural application of components of Stewardship on local level is required.

Key message

- In times of decentralization of laws and community development a more structural implemented ethical approach as the Stewardship could be beneficial for informed policy making

Hypertension management among diabetics in a multi-ethnic population: The HELIUS study

Charles Agyemang

F Fernald[1], *BJH van den Born*[2], *MB Snijder*[1], *LM Brewste*[2], *RJ Peters*[3], *C Agyemang*[1]
[1]Department of Public Health, Academic Medical Centre, University of Amsterdam, Amsterdam, The Netherlands
[2]Department of Internal & Vascular Medicine, Academic Medical Centre, Amsterdam, The Netherlands
[3]Department of Cardiology, Academic Medical Centre, University of Amsterdam, The Netherlands
Contact: c.o.agyemang@amc.uva.nl

Background

There is a paucity of data on hypertension awareness, treatment and control among diabetic adults from different ethnic backgrounds. We therefore assessed ethnic differences in prevalence, awareness, treatment and control of hypertension among diabetic adults and how they are compared with individuals without diabetes.

Methods

In this cross-sectional study, data from the HELIUS study were used including 12,921 adults aged 18–70 years from 6 ethnic backgrounds s in Amsterdam, the Netherlands. Age-sex-adjusted prevalence ratios (PR) were used to explore ethnic differences.

Results

Among diabetic individuals, African Surinamese(80.2%; PR 1.26, 95% CI 1.06-1.51) and Ghanaians(81.7%; 1.40, 95%CI 1.17-1.68) were more likely than Dutch (69.6%) to have hypertension. Blood pressure (BP) control rates were significantly lower in Ghanaians (41.7%; 0.66, 95% CI 0.45-0.96) and African Surinamese (43.4%; 0.68, 95% CI 0.47-0.97), compared to diabetic Dutch people (57%). Among non-diabetic adults, except Moroccans, all the ethnic minority groups had higher prevalence rates of hypertension, awareness (except South-Asian Surinamese and Turks) and treatment compared with non-diabetic Dutch people. By contrast, BP control rate were lower in all ethnic groups, with the differences being significant for African Surinamese(42.5%; 0.68, 95%CI 0.57-0.80), South-Asian Surinamese(41.8%; 0.68, 95% CI 0.57-0.82) and Ghanaians (35.2%; 0.54, 95% CI 0.45-0.65).

Conclusion

Hypertension awareness and treatment rates are higher in the diabetic population than in the non-diabetic population, but the rates are similar among ethnic groups. Adequate BP control remains low among ethnic minority groups, particularly among diabetic African descent people. Major effort is needed to improve BP control among diabetic people given the cardiovascular complications associated with uncontrolled BP in this group.

Key messages

- Adequate BP control remains low among ethnic minority groups, particularly among diabetic African descent people
- Major effort is needed to improve BP control among diabetic people given the cardiovascular complications associated with uncontrolled BP in this group

Use of telemedicine in the European penitentiaries: a 2015 survey

Violetta Andriolo

V Andriolo[1], *MR Gualano*[2], *F Bert*[2], *R Siliquini*[2]
[1]School of Specialization in Hygiene and Preventive Medicine, Department of Public Health Sciences and Pediatrics, University of Turin, Italy
[2]Department of Public Health Sciences and Pediatrics, University of Turin, Italy
Contact: violetta.andriolo@unito.it

Background

Telemedicine has demonstrated to improve access and quality of healthcare services, especially in the underserved areas, in a cost-effective way. In this scenario, prisons seem to be an ideal context to adopt telemedicine systems. Despite its widely and successfully adoption as routine service in the USA penitentiary system, little is still known about its use across European penal institutions. Our study aims to describe and assess the use of telemedicine within the European jails.

Methods

To maximize data availability, we used two different approaches. A bottom-up approach was used by gathering information directly from prisons' directors while a top-down approach was used to collect information from institutional referents at national level. All the respondents were contacted by e-mail. Prisons' directors and contact persons were asked to convey their knowledge about utilization of telemedicine in penitentiary health care systems.

Results

Information gathered directly by contacting prison directors and/or persons in charge come from all the 28 EU members. Finally, we contacted 211 prison directors and 116 persons in charge, with a total response rate of 67%. Results show that telemedicine, as additional healthcare delivery model, is used only in 11 Countries, especially in Northern and Western Europe (50% of the Countries in both areas). Interestingly, Romania showed to have a pilot project for a nationwide program of telemedicine.

Conclusions

Currently, telemedicine services among European penitentiaries have been little implemented. Given the demonstrated advantages of the technological application, it would be desirable to improve its utilization in prison healthcare and to integrate it in the routine services, as benefit not only for prison environments but also for the whole community of each Country.

Key messages

- Despite telemedicine has demonstrated to improve access and quality of healthcare services in a cost-effective way, its use among European penitentiaries is still poorly implemented
- Given the demonstrated advantages of telemedicine, it would be desirable to improve its utilization within prison environment and to integrate it in the routine services of penal healthcare

Predictors of Emergency Caesarean Births to Low-Risk Migrant Women

Lisa Merry

L Merry[1], S Semenic[2], T Gyorkos[3], W Fraser[4], AJ Gagnon[5]
[1]Ingram School of Nursing, McGill University, Montreal, Canada
[2]Ingram School of Nursing, McGill University, Women's Health Mission, McGill University Health Centre (MUHC), Montreal, Canada
[3]Department of Epidemiology, Biostatistics & Occupational Health, McGill University, Division of Clinical Epidemiology, McGill University Health Centre (MUHC), Montreal, Canada
[4]Centre hospitalier universitaire de Sherbrooke (CHUS) Research Centre, Department of Obstetrics and Gynecology, University of Sherbrooke, Sherbrooke, Canada
[5]Ingram School of Nursing and the Department of Obstetrics and Gynecology, McGill University, The Research Institute of the McGill University Health Centre (RI-MUHC), Montreal, Canada
Contact: lisa.merry@mail.mcgill.ca

Background

The high number of caesareans performed in High Income Countries (HICs) is of concern due to associated risks. Recommendations to reduce caesarean rates include preventing emergency caesareans among low-risk women (i.e., vertex, singleton, term pregnancies). Pregnant migrant women from low or middle income countries (LMICs) may face conditions that exacerbate childbearing and delivery health risks. The objective of this study was to identify medical, migration, social and health service predictors associated with emergency caesareans in low-risk migrant women from LMICs.

Methods

Using a case-control research design, migrant women from LMICs, and living in Canada ≤ 8 years were recruited from the postpartum units of three hospitals in a major urban Canadian city between March 2014 and January 2015. Data were collected from medical records and by administration of the Migrant-Friendly Maternity Care questionnaire (available in 8 languages). Low risk women who delivered by emergency caesarean for discretionary indications (cases) or vaginally (controls) were included in analyses. Multi-variable logistic regression was performed to identify predictors of emergency caesarean.

Results

233 cases and 1615 controls were analyzed. Predictors of emergency caesarean were: pre-pregnancy BMI ≥ 25 and/or excessive pregnancy weight gain (OR = 1.49, 95% CI 1.02-2.13), poor maternal health (OR = 1.38, 95% CI 0.95-1.98), admission to birthing centre < 4 cm dilated (OR = 6.48, 95% CI 3.50-12.01), maternal region of birth Sub-Saharan African/Caribbean (OR = 2.39, 95% CI 0.95-5.99), and length of time in Canada < 2 years (OR = 2.04, 95% CI 1.04-4.03). Among women < 2 years in Canada, gestational diabetes and/or hypertension (OR = 2.07, 95% CI 0.98-4.35), having a humanitarian migration classification (OR = 4.48, 95%CI 1.21-16.49), and admission to the birthing centre < 4 cm dilated (OR = 7.43, 95% CI 3.04-18.18) were important predictors.

Conclusion

There are important migration, medical, and health service predictors of emergency caesareans to migrant women from LMICs.

Key messages

- Sub-Saharan African/Caribbean, recently-arrived, and humanitarian migrant women, are particularly vulnerable to having an emergency caesarean and this is not explained by medical factors
- BMI/pregnancy weight gain, gestational hypertension/diabetes and overall poor maternal health are predictive of emergency caesarean in low risk migrant women from LMICs

Polymorphisms affecting alcohol consumption behaviour in the general Hungarian and Roma populations

Roza Adany

J Diószegi[1,2], S Fiatal[1], R Tóth[1], Á Moravcsik-Kornyicki[1,3], Z Kósa[4], J Sándor[1,2], R Ádány[1,2,3]
[1]Department of Preventive Medicine, Faculty of Public Health, University of Debrecen, Debrecen, Hungary
[2]WHO Collaborating Centre on Vulnerability and Health, Department of Preventive Medicine, Faculty of Public Health, University of Debrecen, Debrecen 4028, Hungary
[3]MTA-DE-Public Health Research Group, University of Debrecen, Debrecen, Hungary
[4]Department of Health Visitor Methodology and Public Health, Faculty of Health, University of Debrecen, Nyíregyháza 4400, Hungary
Contact: adany.roza@sph.unideb.hu

Background

In Central and Eastern European countries the Roma population represents the largest minority. Several studies suggest that harmful alcohol drinking habits, even among Roma children and adolescents, is more common than in the majority population. The aim of our study was to evaluate the genetic susceptibility of Roma to uncontrolled alcohol consumption compared to the general population.

Methods

A total of 753 samples from the population of segregated Roma colonies and 1783 samples from the general Hungarian population were genotyped for 25 polymorphisms. Differences in genotype and allele distributions, as well as the existence of Hardy-Weinberg equilibrium, were investigated with the $\chi 2$ test. Linkage disequilibrium analysis was also performed.

Results

The genotype and allele frequencies differed significantly between the Hungarian and Roma populations for 17 SNPs (p < 0.002), but the genetic alterations that predispose to or protect against harmful alcohol consumption were not over-represented in the Roma population. The frequency of the risk allele of rs610529 negatively correlated (p = 0.049) with age advancement in Roma, whereas the risk allele frequency of rs2221020 showed a positive correlation (p = 0.044) with age in the general Hungarian population. Linkage analysis showed differences in LD between the two populations.

Conclusions

Differences in alcohol consumption habits between the Roma and Hungarian populations do not appear to be linked to genetic constitution, this behaviour may occur as a result of different cultural values and environmental exposures.

Key messages

- Harmful alcohol consumption seems to have no genetic background in the Roma population
- Preventive interventions focusing on cultural and environmental factors are preferred for controlling alcohol consumption in the Roma population

The Italian Metropolitan Longitudinal Studies: monitoring immigrant health by an open cohort design

Paolo Giorgi Rossi

*B Pacelli[1], N Caranci[1], C Di Girolamo[1], S Broccoli[2,3], N Zengarini[4], T Spadea[4], P Carnà[4], G Costa[4], A Petrelli[5], PG Rossi[2,3], INMP working group**

[1]Regional Agency for Health and Social Care, Emilia-Romagna Region, Italy
[2]Epidemiology Unit, Azienda Unità Sanitaria Locale, Reggio Emilia, Italy
[3]IRCCS Arcispedale Santa Maria Nuova, Reggio Emilia, Italy
[4]Epidemiology Unit, ASL TO3 Piedmont Region, Grugliasco (TO), Italy
[5]National Institute for Health, Migration and Poverty (INMP), Italy
Contact: bpacelli@regione.emilia-romagna.it
*Alessio Petrelli, Gianfranco Costanzo, Concetta Mirisola, Teresa Spadea, Nicolás Zengarini, Luisa Mondo, Paolo Carnà, Teresa Dalla Zuanna, Giuseppe Costa, Barbara Pacelli, Chiara Di Girolamo, Delia Furio, Nicola Caranci, Serena Broccoli, Laura Bonvicini, Paola Ballotari, Paolo Giorgi Rossi, Laura Grisotto, Gianna Terni, Annibale Biggeri, Laura Cacciani, Anna Maria Bargagli, Nera Agabiti, Marina Davoli, Cristina Canova, Laura Cestari, Michele Zanella, Lorenzo Simonato, Achille Cernigliaro, Salvatore Scondotto

Background

Immigration in Italy is a rapidly increasing phenomenon, but very few studies have been conducted on immigrants' health due to limitations in available data. The Italian network of metropolitan longitudinal studies (MLSs) includes cohorts from the cities of Rome, Turin, Venice, Reggio Emilia and Florence and aims at evaluating socio-demographic determinants of health. To date the transition from a closed to an open cohort design, the preferred choice for a highly mobile population, has been tested in two cities, namely Turin (872,091 inhab. in 2012) and Reggio Emilia (163,928 inhab. in 2012).

In these two cities we aimed to analyze the relationship between migration and health.

Methods

The cohorts of Turin and Reggio Emilia include people residing from 21/10/2001 or later registered, and followed up until 31/12/2012. Demographic data have been linked with the death register. To compare immigrant (overall and by macro-areas of origin) and Italian mortality, Incident Rate Ratios (IRRs) adjusted by age and calendar year, and 95% CI were estimated with Poisson models among women and men aged 1–64 years.

Results

In Turin 7,607,631 person years and 13,751 deaths were observed, with an IRR of 0.77 (95% CI: 0.69-0.86) for men and 0.77 (95% CI: 0.67-0.88) for women. In Reggio Emilia 1,418,893 person years and 1,948 deaths were observed with an IRR of 0.83 (95% CI: 0.67 to 1.03) for men and 0.52 (95% CI: 0.37 to 0.73) for women. Mortality IRRs for the different macro-areas were consistently heterogeneous in the two cities, with a significant risk excess in the Sub-Saharan Africans.

Conclusions

The MLSs is a powerful tool to study the epidemiological profile of immigrants. Although lower mortality risks were observed for immigrants than Italians, our study highlighted heterogeneity across the macro-areas of origin. Further analyses on a wider set of towns and focusing on cause-specific mortality and length of stay in Italy are needed to better understand this topic.

Key messages

- Immigration had a steep increase from 2000's in Italy and the open cohort approach within the MLSs can be a powerful tool to study immigrants' health
- First results highlighted a significant heterogeneity by macro-areas of origin

6.D. Pitch presentations:Evidence, environment and health information

Incident Reporting patterns: a five year experience

Pierfrancesco Tricarico

F Bellomo[1], P Tricarico[2], L Castriotta[1], G Cattani[2], L Grillone[2], S Degan[1], D De Corti[1], S Brusaferro[1,2]

[1]Accreditation, Clinical Risk Management and performance assessment Unit - Udine University Hospital, Italy,
[2]Department of Medical and Biological Sciences – University of Udine, Italy;
Contact: pierfrancesco.tricarico@gmail.com

Background

Incident Reporting (IR) is an essential tool for identifying and analyze healthcare related risks is a marker of the attention to patient safety. IR highlights error's predisposing conditions and improvement opportunities.

Objects and Methods

The aim of the study was to analyze the characteristics of the IR in a large academic hospital (2009-2014).

Reported events (REs) were anonymous and included the following (not mandatory) information: date, day of the week, time slot (morning, afternoon and night shift), reporter's ward (Medical, Surgical, Diagnostics, Intensive Care Unit [ICU], Operating Rooms [OR]) reporter's role (Doctor, Nurse, Other), incident description, patient age, patient sex, event occurrence (Adverse Event, Near Miss).

Results

A total of 4698 REs were collected, corresponding to 1 every 56 discharges (264869/4698), with an average of 783 IR per year; 34,4% (1618) were adverse events, 40,9% (1923) near misses. IR distribution during the week progressively increased from Monday to Wednesday (peak of 17,0% of REs [803]) then decreased towards weekend (4,4% [353] on Sunday). The time slot analysis showed a peak of REs during morning shift (42,1% [1977]) with a decrease in afternoon (22,3% [1049]) and night (7,1% [332]) shifts.

REs came for 29,5% (1387) from Medical wards, 24,7% (1159) from Diagnostics, 20,8% (975) from Surgical wards, 11,2% (524) from ICU and 6,8% (319) from OR.

Reporter's role was for 49,3% (2315) nurse, for 26,2% (1232) doctors and 17,7% (832) others. Comparing reporter's role with professionals full time equivalent (FTE) we had 1 IR every 3,7 nurse, 1 every 3,3 doctors and 1 every 12, 8 others.

Conclusions

The number of REs showed an elevated attention to patient safety. IRs distribution during week and time slot seemed to follow hospital level of activity. Medical wards according to the literature seemed the main setting for reported adverse events. Contrary to literature, doctors seemed more inclined to REs than nurses.

Key messages

- Incident Reporting is a marker of attention to safety
- Reported Events provide an organization profile for sensibility to safety and for error's predisposing conditions and improvement opportunities

Risk assessment of heavy metals in a Smelter Town Alaverdi, Armenia

Kristina Akopyan

K Akopyan, V Petrosyan, R Grigoryan, D Melkom-Melkomian
[1]American University of Armenia, School of Public Health, Yerevan, Armenia
Contact: akopyank@aua.am

Background

Heavy metals, including lead (Pb) and arsenic (As) are harmful to human health. Pb is a probable and As is a known human carcinogen. Children are more vulnerable to Pb exposure, which can lead to adverse health effects including reduced cognitive abilities. Irresponsible mining and smelting activities lead to heavy metal contamination. The largest copper smelter in Armenia is located in Alaverdi town.

The objective of this study was to conduct assessment of As and Pb contamination in residential soil in Alaverdi examining the relationship between geographic proximity to the smokestack and estimating blood lead levels (BLL) of children using the Integrated Exposure Uptake Biokinetic (IEUBK) model.

Methods

Overall, 271 soil samples were tested in-situ via XRF analyzer. The distance from the smokestack and each sampling point was calculated via Arc GIS 10.2; elevation was derived from the geographical coordinates and categorized into two levels: above and below 900 m.

Results

About 75.6% of all soil samples exceeded cleanup level for As and 24.0% for Pb. Regression analysis showed that GM of As decreased by 1.8 times for each km distancing from the stovepipe fixing for elevation (95% CI = 1.4–2.2, $p < 0.00$). GM of As decreased by 1.2 times for altitudes above 900 m, while controlling for the distance from the smokestack (95% CI = 0.8–1.5, $p = 0.082$). Given that elevation remains constant, GM of Pb decreased by 1.5 times for each km distancing from the smokestack (95% CI = 1.2–1.9, $p = 0.001$). GM of Pb decreased by 1.5 times for altitudes above 900 m, while adjusting for the distance from the smokestack (95% CI = 1.3–1.8, $p = 0.003$). The IEUBK model estimated BLL to be 2.7–5.1μg/dL for 0.5–7 year old children.

Conclusions

Our data showed elevated levels of As and Pb in residential soil of the smelter town and significant association between contamination and geographical proximity to the contamination source. The observed Pb contamination could result in unsafe BLL in children.

Key messages

- There is significant As and Pb contamination in residential soil of the smelter town Alaverdi
- Observed Pb contamination could lead to unsafe BLL in children

Short-term health effects following a major train accident with acrylonitrile in Belgium

An Van Nieuwenhuyse

A Van Nieuwenhuyse[1], K Simons[1], T De Smedt[1], C Stove[2], P De Paepe[3], B Nemery[4], M Bader[5], C Vleminckx[1], I Van Overmeire[1], S Fierens[1], B Mertens[1], K De Cremer[1], T Goën[6], T Schettgen[7], H Van Oyen[1], J Van Loco[1]
[1]Scientific Institute of Public Health, Brussels, Belgium
[2]Ghent University, Laboratory of Toxicology, Department of Bioanalysis, Ghent, Belgium
[3]Ghent University Hospital, Department of Emergency Medicine, Ghent, Belgium
[4]Katholieke Universiteit Leuven, Department of Public Health and Primary Care, Centre for Environment and Health, Leuven, Belgium
[5]BASF SE, Occupational Medicine & Health Protection, Ludwigshafen, Germany
[6]University of Erlangen-Nuremberg, Institute and Outpatient Clinic of Occupational, Social and Environmental Medicine, Erlangen, Germany
[7]RWTH Aachen University, Institute for Occupational and Social Medicine, Medical Faculty, Aachen, Germany
Contact: an.vannieuwenhuyse@wiv-isp.be

Background

Following a train derailment, 60 tons of acrylonitrile (ACN) exploded, inflamed and part of the ACN ended up in the sewerage system of the village of Wetteren (East-Flanders, Belgium). The adduct N-2-cyanoethylvaline (CEV) was increased especially in the residents living around the sewerage system, but less in the residents living close to the accident (De Smedt et al., Toxicology Letters, 2014).

Objectives: 1) To describe the short-term health effects that were reported by the residents following the train accident, and 2) To explore the association between CEV concentrations as measured in the blood and the self-reported short-term health effects.

Methods

Short-term health effects were reported in a questionnaire ($n = 191$). Independency between the CEV concentrations and symptoms was tested by an omnibus test of independency based on the sample distance covariance, and the dose-relationship was quantified using Generalized Additive Models (GAMs).

Results

The most frequently reported symptoms were irritation (53%) and headache (44%), followed by nausea (15%) and tremor (7%). In the non-smokers, significant associations were seen between the CEV concentrations and 'irritation' ($p = 0.007$) and 'nausea' ($p = 0.007$). From the GAMs, three observations became clear for the non-smokers: 1) The best fitting dose-response relationship was a monotonous increasing relation between the CEV concentrations and 'irritation' and 'nausea'; 2) The probability to report symptoms at CEV concentrations ranging between the limit of detection and the reference value of 10 pmol/g globin was not zero and may be suggestive for false positives; 3) The probability of symptom reporting was higher in the residents who visited the emergency services. This was seen for the whole range of CEV concentrations, independent of the dose.

Conclusion

In the non-smoking residents, dose-dependency between ACN exposure at the time of the train accident and 'irritation' and 'nausea' was observed.

Key messages

- Following a train accident with acrylonitrile, N-2-cyanoethylvaline (CEV) was measured
- In the non-smoking residents, dose-dependency between CEV self-reported 'irritation' and 'nausea' was observed

Cochrane Kompakt – Evidence of Cochrane Reviews in German

Ingrid Toews

I Toews[1], JJ Meerpohl[1], A Flatz[2], S Voigt-Radloff[1], B Nussbaumer[3], J Ried[4], E von Elm[5]
[1]Cochrane Germany, University Clinic Freiburg, Freiburg, Germany
[2]Cochrane Switzerland, Institut universitaire de médecine sociale et préventive, Lausanne, Switzerland
[3]Cochrane Austria, Donau Universität Krems, Krems Austria
[4]Cochrane Central Executive, London, UK
[5]Cochrane Switzerland, Centre hospitalier universitaire vaudois, Lausanne, Switzerland
Contact: ingridfast@web.de

Background

Many stakeholders in healthcare and patients need health information in short formats and their first language. Most evidence-based resources, e.g. systematic reviews, are in English. Therefore relevant contents which could improve decision-making in health might not be used at all or not in time. To improve access to Cochrane Reviews (CRs), Cochrane (formerly the Cochrane Collaboration) one focus of Cochrane's organisational strategy "Strategy to 2020" is to translate content into multiple languages. Cochrane Switzerland, Cochrane Austria and Cochrane Germany coordinate joint efforts to translate PLSs of CRs into German and publish them under the label Cochrane Kompakt (www.cochrane.org/de).

Aim

Making evidence-based, transparent and user-friendly health information widely available and accessible for informed decision-making and better health.

Methods

Besides translation resources from the Cochrane entities, there are translation-teams from various professional fields, e.g. public health or physiotherapy. Cochrane provides central support and an online translation platform (Smartling ®) including a glossary and a translation memory for management and publication of the translations. Translations and double editing by health specialists and native speakers guarantee high quality and standardisation.

Translations are published in the Cochrane Library, in Cochrane Kompakt (http://www.cochrane.org/de/evidence) and partly co-published in German-language discipline-specific journals. This increases the dissemination and impact of translated Cochrane summaries.

Results

Currently 239 translated PLSs with content from various health specialties are available on Cochrane Kompakt (April 2015), several with a focus on public health. Co-operation with seven professional fields have been successfully established with more co-operations to follow. The aim is to further increase the content of Cochrane Kompakt and establish it as a recognized information resource.

Key messages

- Access for stakeholders to relevant evidence-based information in multiple languages -necessary for prompt and informed decision-making in public health- is improved by the Cochrane "Strategy to 2020"
- Cochrane Kompakt, a co-operation between three German-speaking Cochrane entities, provides evidence-based health information through short summaries of Cochrane reviews in plain language German

A new interactive tool for comparing public health indicators on three geographical levels

Guus Luijben

AHP Luijben, SLN Zwakhals, MM Mulder, M De Vries, C Deuning, H Giesbers
National Institute for Public Health, Centre for Health and Society, Bilthoven, The Netherlands
Contact: guus.luijben@rivm.nl

Problem description

Comparing local information with regional and national helps to understand the local situation. For local authorities it is time-consuming to filter and transform the large quantities of data that are available into the information needed. So, there is a need for a standardized information overview in which, by default, a municipality is compared with regional and national figures. This problem can be regarded as a demand for an interactive tool for comparing public health indicators on three geographical levels.

Method

A prototyping method was used, starting with a lightweight initial design of the interface. This initial version was used to capture concepts and layouts to gather feedback from users and stakeholders. A script was developed that contained modules for (1) Conversion of datasets into standard structure, (2) Calculation of the selected indicators, (3) Development of templates for webpages and graphs, (4) Conversion of indicators into graphical format, (5) Generating reports, combining information about the indicators with information of the municipality.

For visualization a JavaScript graphing library (HighCharts) was used. HTML files and JavaScript files were generated using the statistical package R.

Conclusions

The development process was innovative. Instead of taking available data as a starting point, the project focused on what the result should look like. This proved to be a successful strategy. See http://goo.gl/wRj0Za (in Dutch).

Lessons

Interactive indicator visualisation makes it an attractive user-friendly information tool. The design of the tool makes it possible to use it in other countries and settings, like on other geographical levels (e.g. country-continent-world).

The generic design enables future expansions, like adding an option for comparing a municipality with another. It is also possible to detect what municipalities are outliers and add this information to the graphs of the municipalities concerned.

Key messages

- Interactive visualisation of indicators makes using it attractive and user-friendly
- The design of the tool makes it possible to use it in other countries and settings

Health information tools in local use - a mixed methods study

Heidi Lyshol

H Lyshol
Norwegian Institute of Public Health, Oslo, Norway
Contact: heidi.lyshol@fhi.no

Background

In order to support the 428 Norwegian municipalities, the Norwegian Institute of Public Health (NIPH) annually updates the Municipal Data Bank (MDB) and simultaneously publishes individual Municipal Public Health Profiles (MPHPs) for all municipalities. This study explored views of municipal public health professionals regarding this information toolset, aiming to gain knowledge about use of this toolkit and what public health workers wanted from it.

Methods

After a strategic literature search, semi-structured qualitative interviews were conducted with 12 informants in 7 purposefully sampled municipalities. Short questionnaires were filled in and practical tests observed.

Using Thematic Analysis and Grounded Theory, transcripts of interviews/observations were coded and used with the questionnaires to identify themes that illuminated whether, when and how the toolsets were used. 6 months later, an online questionnaire about the MDB and MPHPs was distributed. 216 anonymous users of the NIPH health information toolset filled in the questionnaire.

Results

The informants appreciated the clear presentations in the MPHPs. They found the MDB clear and serviceable, but many had never actually tried it. The MDB/MPHP indicators were used to guide municipal planning, to collaborate in various ways with other municipalities, and many informants hoped to use them for evaluation of interventions.

The quantitative results corroborated the primary qualitative results. More respondents had used the MPHPs than the MDB, and the map functionality was the part of the MDB with most «don't know» or «difficult to use» replies.

Conclusions

There is need for further indicators, more training, particularly on the MDB, and political leaders in the municipalities must be more involved with public health work and more actively support their public health officials. Despite some shortcomings, the MPHP-/MDB toolsets were thought to be serviceable for municipal public health work.

Key messages

- Health information tools, such as health profiles and databanks, are useful for public health workers
- The intended users, particularly local policy makers and others without public health training, need to be taught how to use these tools

Implementation of ways to effectively integrate health into local environmental planning

Mette Winge Jakobsen

MW Jakobsen
Unit for Health Promotion Research, Institute of Public Health, University of Southern Denmark, Esbjerg, Denmark
Contact: mwjakobsen@health.sdu.dk

Health impact assessment (HIA) is an approach to ensure sustainable policymaking and development in relation to health. Despite increased interest only few actual HIAs have been carried out in Denmark. In 2011, the Danish Ministry of Health financed the Danish Healthy Cities Network project HIA in Danish Municipalities and Region. The project aimed to increase capacity in and implementation of HIA in Denmark as well as ensure health in all policies (HiAP).

Mapping of past and current HIA activities was done in 2011 followed by the development of three HIA implementation models for the environmental planning: (i) Integration of HIA into the statutory environmental impact assessment of plans and programmes; (ii) Case by case assessment of the need for HIA on both plans and projects; and (iii) Sustainability assessment of all major strategies and plans. The intervention period (2011-2013) included testing of the implementation models, capacity building and expert consultation.

The intervention was evaluated in 2012 and 2014 in relation to the most effective mechanisms in relation use of HIA tools, sustainable procedures for integrating a health concern and ensuring HiAP.

Evaluation results showed that HIA tools were integrated into the local planning process as proactive planning tools. Systematic procedures and cross-sectoral collaboration were key factors in integrating a health concern in environmental planning, strengthened by frequent, accurate and timely communication, personal relationship and common language for health relevant for environmental planning. Also, early involvement increased ownership.

Simple tools, improving existing planning processes and creating common language for health were key learnings to ensure effective implementation of a health concern in a local planning process. Also, proactive approach instead of reactive is preferred.

Key messages

- HIA is useful to improve existing planning procedures together with systematic cross-sectoral collaboration in the planning process to ensure health in all policies
- HIA is not directly applicable for effectively integrating a health concern in local environmental planning

Implementation of Health Impact Assessment in the Czech Republic: a case study of bottom-up approach

Lenka Marincova

L Marincova[1], J Kucerova[2]
[1]Faculty of Science, Palacky University, Olomouc, Czech republic
[2]Regional Public Health Authority Liberec, Czech Republic
Contact: lenka.marincova@gmail.com, lenka.marincova@upol.cz

Issue/problem

Most of the projects, programs, and policies aim to enhance wellbeing and living conditions. However, experience shows that without complex assessment concrete realization can negatively impact environment, living conditions, health or nourish inequality. To avoid these negative effects the method of Health Impact Assessment (HIA) has been widely used. EU and WHO legislation recommends the HIA implementation of community strategies and policies at all levels. As a result, the Czech Republic included the HIA in the national health strategy Health 2020 as its implementation tool. However, a central legislation that would give this vision a concrete framework is still missing.

Problem

Nevertheless, the Liberec region has become an exception to this. It changed its strategy in evaluating of development documents that shall be in accordance with health and health policies. Could implementation of HIA based simply on willingness of regional policymakers with support of regional public health authorities and without an official national legislative framework be an effective way of HIA implementation at national level?

Results

Liberec region has adopted a unique way of implementing HIA in accordance with legal regulation that can be issued by the council with delegated authority. Systemic change of assessment was initiated by problem identification under the terms of WHO project Investment for health and development. First regional resolution assigned to submit a proposal for the assessment system of strategic and development documents. After developing specific HIA methodology for Liberec region, the following resolution set up the need to elaborate both a training and an assessment guide, and an arrangement for a permanent integration of the assessment in the legislation. As a result, 2 trainings, guides and final resolution were realized where the duty for the regional documents' owners was set to always elaborate both the HIA on health and the compliance to health policy.

Lessons

This way of HIA implementation can be the inspiration for other regions. A bottom-up approach together with own willingness can be therefore both a way to cover all regional projects and policies and to help HIA to become part of central legislation.

Key message

- A bottom-up approach together with own willingness can be therefore both a way to cover all regional projects and policies and to help HIA to become part of central legislation

6.E. Pitch presentations:Health literacy, knowledge and awareness

Development and application of the Health Literacy Response Framework

Richard Osborne

S Dodson[1], P Mech[1], R Batterham[1], A Beauchamp[1], R Buchbinder[2,3], RH Osborne[1]
[1]Public Health Innovation Deakin, Deakin University, Melbourne, VIC, Australia
[2]Monash Department of Clinical Epidemiology, Cabrini Hospital; Australia
[3]Department of Epidemiology and Preventive Medicine, School of Public Health & Preventive Medicine, Monash University, Australia
Contact: richard.osborne@deakin.edu.au

Background

Health literacy is now a focus of governments, and health and community services due to its importance to public health. The Optimising Health Literacy (Ophelia) Project is identifying and testing new interventions to address health literacy needs in people from a wide range of socioeconomic and cultural settings in several countries. This paper presents the Health Literacy Response Framework (HL-RF), a key output of the Ophelia Victoria project. The HL-RF outlines the types of strategies practitioners and organisations can employ in response to the health literacy needs of community members, and the mechanisms by which these strategies influence health outcomes. The HL-RF acts as a guide for policy development, intervention planning and evaluation.

Method

77 providers from eight organisations participated in workshops to reflect on health literacy data of their clientele to generate insights into: a) health literacy opportunities and challenges in the local community; b) potential strategies for optimising people's health literacy and improving organisational responsiveness to the identified health literacy needs of the community. Data were thematically analysed.

Results

Four levels of strategies were found across several hundred intervention ideas: 1) staff to support and build the capacity of individuals; 2) organisations to support and built the capacity of staff; 3) organisations to improve organisational culture and the accessibility, and equity of services provided; and 4) organisations to collaborate with other agencies and services. Themes were identified for each of these levels, along with the mechanisms connecting individual level interventions and health literacy outcomes. Relationships between strategies at each level were also presented.

Conclusions

The HL-RF is the first whole-of-system approach to organise current and potential strategies for improving health literacy and health outcomes of communities and community members.

Key messages

- Locally developed solutions to health inequalities are critical in public health, however this needs to be whole-of-system to be most effective
- The HL-RF provides a framework that can guide development and selection of a wide range of locally-relevant and fit-for-purpose interventions that are likely to be implementable

Health Literacy in Europe: the development and validation of health literacy prediction models

Iris Van Der Heide

I van der Heide[1], E Uiters[2], H Boshuizen[2,3], J Rademakers[1]
[1]Netherlands Institute for Health Services Research (NIVEL), Utrecht, The Netherlands
[2]National Institute for Public Health and the Environment, Bilthoven, The Netherlands
[3]Biometris, Wageningen University, Wageningen, The Netherlands
Contact: i.vanderheide@nivel.nl

Introduction

Health literacy is considered an important determinant of health disparities. It is therefore important to have insight into health literacy skills of the general population within countries. Little is known on the health literacy skills of the general population in EU member states. The aim of our study was to examine whether census data can be used to provide a reliable indication of health literacy skills on population level in EU member states.

Methods

Dutch data derived from the European Health Literacy Survey (HLS-EU) and the Adult Literacy and Life Skills Survey (ALL) were used to develop prediction models to predict subjective (self-reported) and objective (tested) health literacy. The HLS-EU data includes a subjective measure of health literacy and the ALL an objective measure. Stepwise linear regression analyses were applied to build one model to predict subjective health literacy and one to predict objective health literacy based on a random 2/3 of the Dutch HLS-EU data and ALL data. The models were validated based on the remaining 1/3 of both datasets and on HLS-EU data from seven other EU countries.

Results

Level of education, age, sex, income, working status and urbanization were included as predictors in the models. In the final models that included merely significant predictors ($p < .05$), education was an important predictor of subjective as well as objective health literacy. Age and working status significantly predicted objective health literacy. Sex and income significantly predicted subjective health literacy. The prediction models provided a reliable indication of health literacy when applied in the same population. The reliability of the models in other EU countries varied per country.

Conclusions

Census data can provide a reliable estimation of national health literacy levels in most countries. The prediction models can be used to provide an indication of health literacy when health literacy measures are absent.

Key messages

- Census data can be used to provide a reliable estiomation of national health literacy measures in most EU countries
- Estimated health literacy levels are to a limited extent usefull for the ranking of EU countries

Mapping health literacy in the Nordic countries: a systematic review

Kristine K Sorensen

K Sorensen, S Ristolainen
Maastricht University, Maastricht, TheNetherlands
Lund University, Lund.,Sweden
Contact: k.sorensen@maastrichtuniversity.nlk.

Background

Health literacy entails the competency to access, understand, appraise and apply information to manage health in daily life. Health literacy undergo an exponential growth but not overall. In particular the Nordic countries are yet to show progress. To provide an overview of the state of the art a systematic literature review was conducted showing the scope and scale of scientific health literacy publications in the Nordic region.

Methods

The literature review was carried out in January and February 2015. Following the Prisma guidelines a search was made in PubMed, Cinahl and Medline using the search terms Health literacy and Nordic, Scandinavia, Denmark, Finland, Iceland, Norway or Sweden. Inclusion criteria ensured abstracts with a primary focus on health literacy, the Nordic countries and

Nordic authors. Based on appropriate abstracts full articles were derived for in-depth analysis and synthesis.

Results

The literature search revealed 97 abstracts, where 48 were included in the literature review. The rest were excluded as they were duplicates, representing other countries than Nordic countries or did not focus on health literacy. The first article was from 2008 and the majority were published in 2014. The distribution varied among the countries: Denmark (3), Finland (15), Norway (11) and Sweden (19). The topics concerned health literacy theory, methodology and measurement, healthcare, disease prevention and health promotion. Publications were published in 32 different journals.

Discussion

The literature review provides novel insights on how the topic of health literacy has been disseminated to date in the Nordic region. The mapping reveals an overview of active stakeholders dominating the emerging Nordic health literacy field and the specific topics prioritized so far. The broad variety of journals illustrates the wide scope of health Literacy as a content and context specific term. The learnings can support research, practice and policy to develop a health literacy agenda that takes into account the achievements and gaps identified in the study.

Conclusions

The study will serve as a milestone within the rapidly changing health literacy field. It's overview indicates that the Nordic region most likely will follow the European trend with increased publications in the years to come benefitting all involved in enhancing health literacy.

Key messages

- Mapping scientific health literacy literature in the Nordic region
- a. Emerging field of health literacy provide potential for the future

CALIS - CAncer Literacy and Information Seeking : a study in the setting of colorectal screening

Danilo Cereda

M Nobile[1], D Cereda[2], AJ Bastiampillai[3], E Gabrielli[3], E Germeni[4], N Diviani[4], G Beghi[6], A Vitale[6], C Antonioli[6], L Gariani[6], R Gullotta[7], G Manes[8], F Auxilia[5], P Schulz[4], S Castaldi[5]
[1]PhD program in Public Health, University of Milan, Italy
[2]DG Salute – Regione Lombardia, Italy
[3]Post Graduated School of Public Health , University of Milan, Italy
[4]Institute of Communication and Health (ICH), Università della Svizzera italiana, Italy
[5]Department of Biomedical Sciences for Health, University of Milan, Italy
[6]ASL Milano 1, Rho, Italy
[7]Clinica San Carlo, Paderno Dugnano, Itay
[8]AO Guido Salvini, Rho, Italy
Contact: danilo_cereda@regione.lombardia.it

Background

Screening tests for Colorectal cancer (CRC) can reduce mortality due to the disease. The CALIS (CAncer Literacy and Information Seeking) research aims to increase colorectal cancer screening in Italian people (50-69), by understanding the role of 'Health Literacy' (HL), 'Psychological Empowerment' (PE)and 'Information seeking behavior' (ISB)in cancer screening adherence.

Methods

The CALIS project is composed of four studies: The first is a cross-sectional survey to understand the role of HL and EP in people over 50 years for colorectal cancer screening. The second is a RCT to evaluate the effectiveness of different forms of screening recommendations in order to increase CRC screening rates. The third is a longitudinal quantitative study to monitor the information seeking behavior of people (50-69) during the cancer journey after a colorectal cancer screening test. The fourth is a longitudinal quantitative study to understand the motivations for seeking information during the cancer journey after a positive or colorectal cancer screening test

Results

The study 1 and 3 have been started in 2015, the pre-test of the Questionnaires was conducted.

Calis 1:14 participants were recruited in the pre-test (think-aloud technique). After some changes, the questionnaires were validated with other 70 interviews (think-aloud technique).

In the march 2015 we sent 3000 questionnaires to people that for the first time were invited to CRC- screening (other will be sent in the next months) .

Calis 2: 32 participants were invited to take part in the pre-test: a total of 31 participants completing the questionnaire. In April 2015 two colonoscopy units were activated (other will be activate) to collect questionnaires from patients positive to the screening test.

Conclusion

This study could provide a better comprehension of the impact of HL ,PE and ISB on decisions to adhere to cancer screening recommendations to plan effective screening recommendations

Key message

- The CALIS research aims to provide a better comprehension of the impact of HL ,PE and ISB on decisions to adhere to cancer screening recommendations to plan effective screening recommendations

''Learn how to be healthy'' Project

Francisco Pavão

P Gouveia, JF Pavão
NGO Mundo a Sorrir, Porto, Portugal
Contact: projetocaso@mundoasorrir.org

Background

The project developed by Mundo a Sorrir, was initiated in 2009 and operates in 115 elementary schools of 15 municipalities of Portugal, covering 8876 children. In Portugal about 50% of children under 6 years have tooth decay, with an average of two decayed teeth, and only 50% of children under six years brushes the teeth twice a day. This demonstrates the importance of taking early preventive measures in children.

Objetives

We intend to improve the oral hygiene of children age 6–10 through the introduction of daily brushing in schools, preventive campaigns of awareness on oral health and healthy lifestyles to children, teachers and parents. It is a 2 year project and at end of the second year the teachers become independent in carrying out the brushing.

Results

In the first year of the project, 88% of children showed a reduction of the amount of Bacterial plaque (BP) of 63% and in the second year 78% reduced the BP. In the schools that entered the project in 2011/2012, 82% of children reduced the amount of BP in the first year and 69% in the second year. In 2012/2013, 76% of the new children reduced the BP 43%. In 2013/2014, 57% of new children decreased the BP in 48%.

Conclusions

The literature review shows that tooth brushing in schools contributes significantly to reduce the prevalence of tooth decay and dental infections. In this project, there is a clear reduction in the amount of bacterial plaque in the majority of the children evaluated, which in turn may lead to the reduction of the prevalence of these kind of diseases.

Despite the controversy regarding this theme, these results prove that when performed with supervision and with adequate material, brushing teeth in schools is effective and functional.

Key message

- Tooth brushing in schools, when performed with supervision and adequate materials has effective results showing reduction of the amount of bacterial plaque in about 80% of the random sample

Knowledge, skills and attitudes people from Girona have on the public defibrillators and their use

Esther Ruiz de Morales

E Ruiz de Morales, A Morales, P Batlle
Dipsalut, Public Health Agency within the regional government of the Diputació de Girona, Girona, Spain
Contact: amorales@dipsalut.cat

Background

In 2011, Dipsalut undertook the deployment of a network of more than 747 Automated External Defibrillators (AED) in all the towns across the Girona region through the programme "Girona, territori cardioprotegit" (Girona, cardioprotected area). This agency is responsible for the set up, maintenance and informational and training actions to publicise the existence of defibrillators for public use and promote their use. Several studies prove that public AED are unknown to the people and there is a need for more public awareness.

Objectives

To assess the knowledge, skills and attitudes the people in the Girona region have on the defibrillators available in public areas and their use.

Methodology

A descriptive and cross-sectional study to assess the knowledge, skills and attitudes that groups of people, who are in different phases and contexts within the programme, have on the defibrillators ($n = 3,582$).

Results

80.18% of the families surveyed know the device, 62.22% know what it is for and 23% know who can use it.

Families with greater knowledge, skills and better attitudes towards the defibrillators available in public areas are those who live in small towns, those who live in towns where an informational event before the start of the study had taken place, and those who have the least number of AED available in their town.

Conclusions

Most families know the existence of defibrillators in public areas and what they are for; however, very few families, less than a quarter, know that everyone can use the device.

Key messages

- We need to strengthen actions in cities because this is where the device is least known
- Informational activities provide skills to take action in case of cardiac arrest and people become aware that, by law, everyone –also people who have not been trained– can use defibrillators

Tripple-I method empowers professional vocational education students in mobilizing their assets

John Dierx

J Dierx, S Detaille, G Boonekamp, V Peters, P JCuperus, L van Hove, Vaandrager
[1]HAN Sports and Exercise, University of Applied Sciences Arnhem-Nijmegen, Nijmegen, The Netherlands
Contact: john.dierx@han.nl

Issue/problem

Obesity and an unhealthy lifestyle due to inactive life style is common amongst adolescents of preparatory vocational education (PVE) in the Netherlands. Obesity is detrimental to health and obese adolescents are likely to become obese adults. Hence, stimulating an active life style of adolescents creates healthier adults.

Problem

Evidence based interventions stimulating an active lifestyle amongst PVE adolescents often do not match ideas and needs of these youngsters. Main question therefore is: What are the ideas and needs of PVE students in the Netherlands and what aspects form their social and physical environment are important regarding promoting an active lifestyle and is the Tripple-I (Interactive Interviewing and Imaging) methodology effective in identifying those needs and ideas and environmental aspects?

Results

The results of Tripple-I performed at 12 schools show that PVE students see several possibilities for promoting an active lifestyle at school ranging from attractive stairs to organizing and participating in regular or extreme sports activities on playgrounds at or in the vicinity of school. PVE students considered friends, parents, family, coaches and idols as significant others in stimulating an active lifestyle.

Lessons

Applying Tripple-I learned that ideas and needs could be identified with this method.

These needs and ideas appeared to be context-specific. Essential elements are peers as researchers in data collection and involving teachers and management in the research process. Most important lesson learned is that by putting the PVE students in control, leads to surprising ideas for sustainable interventions to promote physical exercise.

Key message

- Tripple-I methodology is an effective tool in identifying needs and ideas for promoting an active lifestyle and mobilizing youngsters to act and feel ownership

6.F. Pitch presentations:Data collection and methodology

New and frequent opioid analgesic use and the risk of crashing in drivers aged 50–60 years

María Angélica Cárdenas Dimaté

MA Cádenas-Dimaté, C Rausch, B Elling, L Laflamme, J Möller, J Monárrez-Espino
Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden
Contact: maria-angelica.cardenas@stud.ki.se

Background

The increasing trend in opioid analgesic (OA) use in the elderly population has raised concerns about their safety under driving conditions. Aim: To investigate if new (N) and frequent (F) OA users are at higher risk of crashing than non-users in Swedish drivers aged 50–80 y.

Methods

Population-based matched case-control study. Data from population-based registers were merged using a common identifier. Cases were drivers involved in an injurious crash between 01.07.05 and 31.12.09; those driving under the influence of alcohol were excluded. Persons holding a valid driving license who did not crash within that period were screened as potential controls, and four were randomly matched to each case by sex, birth month/year, and residence place. N-OA use was defined when at least one dispensation was given within 1–30d prior to the crash date (index date), but none within the subsequent 31–180d. F-OA use was when ≥ 3 dispensations were given within 0–180d prior to the index date, with at least one within 31–180d; the number of OAs was categorized as 3–4, 5–6, and ≥ 7. Conditional logistic regression was used to compute ORs adjusting for benzodiazepine use, comorbidity, civil status, and occupation. Persons using 1–2 non-OA medications were used as reference. Analyses focused on single-vehicle events where responsibility could be assumed.

Results

Adjusted ORs for N-OA use were three-fold that of drivers using 1–2 non-OA medications (OR 3.1; 95% CI 2.2-4.2); lower, but statistically increased ORs were also found for F-OA users with an ascending trend with number of dispensations. For N-OA use ORs were higher in men and in those aged 65–80y.

Conclusion

N and F OA use can result in higher crashing risks. While more epidemiological evidence is produced, patients could be advised to refrain from driving when starting to use an OA. For those under maintenance therapy an individual assessment of the potential risk of driving impairment is an alternative.

Key messages

- New and frequent use of opioid analgesics can result in higher crashing risks in drivers aged 50–80 years
- While more epidemiological evidence is produced, advising patients using opioid analgesics to consider refraining from driving could be appropriate

Prevalence of multiple sclerosis in Tuscany at 2011: a study based on validated administrative data

Daiana Bezzini

D Bezzini[1,2], L Policardo[3], Giuseppe Meucci[4], Monica Ulivelli[5], Sabina Bartalini[5], Francesco Profili[3], Mario A Battaglia[1,2], Paolo Francesconi[3]

[1]Department of Life Sciences, University of Siena, Siena, Italy,
[2]Fondazione italiana sclerosi multipla, Genova, Italy,
[3]Agenzia regionale di sanità della Toscana, Florence, Italy,
[4]Unit of Neurology,USL6, Livorno, Italy,
[5]Department of Neuroscience, Neurology and Clinical Neurophysiology Section, University of Siena, Siena, Italy
Contact: daianabezzini@gmail.com

Background

Multiple Sclerosis (MS) affects 2.3 million people world-wide. Italy is a high-risk area (with 75,000 cases estimated), with highest rates in the island of Sardinia. The last published rates in Tuscany (central Italy) were a prevalence of 56 cases/100,000 in 1991 and a mortality of 0.4 for males and 0.6 for females in 2002–2006. In Tuscany a population MS register has been founded but, to date, it's not yet completed.

To monitor disease epidemiology, comorbidities and care pathways, but also to describe the disease burden and to plan its prevention, treatment and management strategies and resource allocation, population-based studies are preferable. Administrative data offer a unique opportunity for population-based prevalence study of chronic diseases such as MS. Our aim is to update the prevalence of MS in Tuscany at 12/31/2011 using a validated case-finding algorithm based on administrative data.

Methods

The prevalence was calculated using administrative data: hospitalization, MS drug dispensing, disease-specific exemptions from patient copayment, home and residential long-term care and inhabitant registry. To test algorithm sensitivity, we used a true-positive reference cohort of MS patients from the Tuscan MS register. To test algorithm specificity, we used a general population cohort of individuals who were presumably not affected by MS.

Results

At prevalence date, we identified 6,890 cases with a rate of 187.9/100,000 (248.3 in females, 122.3 in males). The sensitivity of algorithm was 98% and the specificity was 99.99%.

Conclusions

We found a prevalence higher than the data present in literature but it's similar to the expected rate considering the progressive increment of prevalence due to annual incidence that is higher than annual mortality.

Our algorithm can accurately identify patients and this cohort is suitable to monitor care pathways. Our future aim is to create an integrated dataset with administrative and clinical data from MS register.

Key messages

- MS epidemiology in Italy can be regularly and accurately updated through administrative data
- Prevalence of MS in Italy is increasing over time and we found in Tuscany a rate of 188 cases/100,000

How should genetic tests be evaluated? Preliminary results of a systematic review

Erica Pitini

E Pitini, C De Vito, C Marzuillo, E D'Andrea, S D'Aguanno, P Villari

Department of Public Health and Infectious Diseases, Sapienza University, Rome, Italy
Contact: ericapiti@hotmail.it

Background

Genetic tests are becoming increasingly available for clinical decision making, ushering in the era of personalized medicine. However, their implementation in clinical practice must be underpinned by a rigorous evaluation of their actual benefits. For this purpose, several evaluation tools have been developed. The aim of this study is to identify and compare the existing tools for assessments of genetic tests, taking into account their methodology and evaluation criteria.

Methods

A systematic review of the literature has been carried out through PUBMED, SCOPUS, ISI Web of Knowledge, Google and grey literature sources using the following inclusion criteria: research articles, systematic reviews, documents of eminent scientific societies, government agencies and research organizations focused on evaluation tools for genetic test. A DELPHI survey, undertaken with international experts in Public Health Genomics, will be performed to reach consensus on data extraction.

Results

Preliminary results consist of 19 tools published between 2000 and 2012 (10 in USA, three in Canada, six in Europe), mostly based on the ACCE model (n.10 tools) and on the HTA model (n.5 tools). Sixteen tools address all types of genetic test, while the others take into account a specific type of genetic test (newborn screening, predictive genetic tests, genetic susceptibility tests). The evaluation criteria adopted by the vast majority of the tools (n.16 tools) are analytic and clinical validity, clinical utility, ethical legal and social issues. At a glance, the evaluation of the economic aspects seems insufficient.

Conclusions

The comparative analysis of the strengths and weaknesses of the retrieved evaluation tools will be the basis for the choice of the most appropriate process of genetic test evaluation that should take into account national and local contexts.

Key messages

- Our preliminary search has retrieved 19 tools for the evaluation of genetic tests, developed in the last fifteen years
- This systematic review will provide the basis for adapting comprehensive and appropriate processes of genetic test evaluation to the different national and local contexts

Establishing an injury indicator for severe pediatric injury

Ian Pike

I Pike[1], M Khalil[2], N Yanchar[3], H Tamim[2], A Nathens[4], AK Macpherson[2]

[1]Department of Pediatrics, Faculty of Medicine, University of British Columbia, and BC Injury Research and Prevention Unit, Child and family Research Institute, BC Children's Hospital, Vancouver, Canada
[2]School of Kinesiology and Health Science, York University, Toronto, Ontario, Canada
[3]IWK Health Centre, Halifax, Canada
[4]Department of Surgery, Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada
Contact: ipike@cw.bc.ca

Background

Reference to injury indicators is one way to prompt action to reduce the burden of injury. However, routinely gathered data, such as hospitalizations, may be subject to variation from sources other than injury incidence. A need for an indicator to define severe injury, which may be less vulnerable to fluctuations due to changes in care and care policies, has been identified. The purpose of this study was to identify ICD-10 codes associated with severe pediatric injuries, and to specify and validate a severe pediatric injury indicator.

Methods

The indicator was developed in four stages. First, two data sets that included the Injury Severity Score and the Survival Risk Ratio, respectively, were used to produce a preliminary list of diagnoses to define severe pediatric injury. In the second phase, in order to establish face validity of the list of diagnostic codes, it was sent to trauma surgeons who classified each code as severe enough to require care in a trauma centre, or not severe enough to require care in a trauma centre. In phase 3, the indicator was then fully specified. The final phase involved using a different data set to validate the codes in a real-world situation.

Results

Sixty diagnoses were identified as representing severe pediatric injury, and form the basis for this indicator. Following specification, the indicator was applied to an existing comprehensive data set of pediatric injuries. The decline in hospitalization of pediatric injuries was significantly steeper for severe than non-severe injuries, suggesting that factors related to the decline in this trauma subset are unlikely to be related to changes in access or other components of trauma care delivery.

Conclusions

The results of this study can be used to operationalize a definition of severe pediatric injury. An indicator based on this methodology can be used for the evaluation of trends in severe pediatric trauma and will help identify special populations at risk. This research will inform policies and procedures for appropriate and timely referrals of severe childhood injury to appropriate levels of care.

Key messages

- There are limitations to using one method alone to measure injury severity in the pediatric population
- An indicator of severe pediatric injury, based on a robust methodology can be used to analyze changes in severe pediatric injury over time and to assess the performance of pediatric trauma systems

Stefania Boccia

S Boccia[1], KJ Rothman[2,3], N Panic[1], ME Flacco[4,5], A Rosso[6], R Pastorino[1], L Manzoli[4,7], C La Vecchia[8], P Villari[6], P Boffetta[9], W Ricciardi[1], JPA Ioannidis[10]
[1]Section of Hygiene, Institute of Public Health, Università Cattolica del Sacro Cuore, Rome, Italy
[2]RTI Health Solutions, Research Triangle Institute, Research Triangle Park, NC, USA
[3]Department of Epidemiology, Boston University School of Public Health, Boston, MA, USA
[4]Department of Medicine and Aging Sciences, University of Chieti, Chieti, Italy
[5]ASL di Pescara, Italy
[6]Department of Public Health and Infectious Diseases, Sapienza University of Rome, Italy
[7]CeSI Biotech, Via Colle dell'Ara, Chieti, Italy
[8]Department of Clinical Sciences and Community Health, University of Milan, Milano
[9]Icahn School of Medicine at Mount Sinai, New York, NY, USA
[10]Departments of Medicine, Health Research and Policy, and Statistics, and Meta-Research Innovation Center at Stanford (METRICS), Stanford University, USA
Contact: sboccia@rm.unicatt.it

Background

The registration of studies before their onset has been proposed as a remedy for within-study selective reporting bias. The study aims to assess the status of registration of non-randomised epidemiologic studies and the presence of outcome reporting bias.

Methods

We identified protocols of non-randomised epidemiologic cancer research studies with prospective recruitment that were registered from February 2000 to December 2011 in ClinicalTrials.gov. We recorded the reported dates of registration and start of recruitment, outcomes, and description of statistical method. We searched MEDLINE, SCOPUS, and ISI for publications corresponding to the registered studies until June 2014. From published studies, we recorded the dates of publication and start of recruitment, and the outcomes.

Results

One thousand one hundred nine protocols registered were eligible. Some primary and secondary outcomes were reported in 73.0% and 41.8%, respectively. Among the 1109 protocols, 1050 described studies that began after the launch of the site in February 2000. The reported date of registration preceded the month of the study start in only 145 (13.8%). A total of 151 publications from 120 (10.8%) registered protocols were identified through May 31, 2014. In 2 of the 6 publications where clinicaltrials.gov reported that the study started recruitment after registration, and in 9 of 18 publications where clinicaltrials.gov reported the same date for protocol registration and start of recruitment, the published papers showed that the study had actually started recruiting before registration. Among those for which information was available, primary and secondary outcomes were concordant between registration records and published reports in 77/94 (81.9%), and 17/25 (68.0%), respectively.

Conclusions

During the period reviewed, few non-randomised epidemiologic studies have been registered. Among those that were registered, registration usually occurred after the study started, and pre-specification of outcomes and statistical analysis rarely occurred.

Key messages

- Registration of non-randomised epidemiologic studies usually occurs after studies have started
- Registration appears to have failed in its purpose of providing protection against selective reporting biases

The Health Literacy Questionnaire: Translation and construct replication in 1,058 persons in Germany

Richard Osborne

S Nolte[1,2], RH Osborne[2], S Dwinger[3], M Härter[3], M Rose[1,4], GR Elsworth[2], JM Zill[3]
[1]Medical Clinic, Department of Psychosomatic Medicine, Charité - Universitätsmedizin Berlin, Germany
[2]Public Health Innovation, Population Health Strategic Research Centre, School of Health and Social Development, Deakin University, Australia
[3]Department of Medical Psychology, University Medical Center Hamburg-Eppendorf, Martinistr 52, Hamburg 20246, Germany
[4]Quantitative Health Sciences, Outcomes Measurement Science, University of Massachusetts Medical School, Worcester, MA, USA
Contact: richard.osborne@deakin.edu.au

Background

Both the prediction and evaluation of outcomes from health interventions frequently rely on self-report data. As these have the potential to not only influence daily healthcare but also influence large-scale policy decisions, it is imperative that data collected are pertinent to patients, clinicians and other stakeholders. Consequently, researchers have an ethical responsibility to apply only those instruments that generate both valid and reliable data achieved through careful instrument development and validation routines before implementation.

Methods

The Health Literacy Questionnaire (HLQ), developed using a validity-driven approach, has undergone extensive validation since its development. The HLQ measures nine distinct aspects of health literacy, showing satisfactory psychometric properties. It has been translated into 20 languages. This paper describes the results of the translation and validation of the HLQ in Germany, using a community-based sample of 1,058 persons with chronic conditions, using Mplus. The 44 HLQ items were translated and culturally adapted to German using the standard HLQ adaptation protocol.

Results

The original HLQ nine-factor structure (no cross-loadings, no correlated errors) was replicated with fit indices similar to the original. However, high correlations between some of the factors led to Mplus warnings, so alternative statistical approaches were explored to investigate the model more closely. Bayesian Structural Equation Modeling was then used and revealed an excellent replication of the original factor structure and reliability.

Conclusions

The HLQ is a multidimensional questionnaire measuring nine constructs. The rigorous development and validation protocol on the one hand, and strict adaptation processes on the other hand, have generated an excellent reproduction of the HLQ in a different language and culture.

Key messages

- The HLQ has strong psychometric properties and provides reliable and valid profiles of health literacy
- Rigor applied in the translation and cultural adaptation process provides an excellent replication of the HLQ in a different language

6.G. Pitch presentations:Evidence from hospital care

Quality assessment of Hospital-Based HTA

Anne Mette Oelholm

AM Ølholm, KK Kidholm, M Birk-Olsen
Odense University Hospital, Odense, Denmark
Contact: anne.mette.oelholm@rsyd.dk

Background

Hospital managers need timely and tailored information of high quality. Consequently, hospitals across Europe have started to produce HTAs as input for decision-making, however, little is known about the quality of hospital-based HTA (HB-HTA). Several guidelines for conducting HTA in general have been developed, but HB-HTA may not have to include the same information or meet the same quality requirements as national HTA. The objective is to improve transparency and quality of HB-HTAs by:

- Developing a checklist for high quality in HB-HTA
- Applying a checklist to a sample of HB-HTAs, assessing the quality and identify areas of improvement

This is part of the European research project on HB-HTA (AdHopHTA).

Methods

A checklist for HB-HTA quality assessment was developed based on a systematic review of characteristics defining high quality in HTA, results of previous studies within the AdHopHTA project and experience of HB-HTA experts.

Quality assessment of a convenience sample of nine European HB-HTAs and estimation of staff effort invested in HB-HTAs were performed.

Results

The checklist includes 26 questions. There is great variation in the quality of HB-HTAs and no reports met all criteria. While most reports are well-structured, include a reference list and describe both the problem of interest and results within most domains, there is still potential for improvement in terms of describing conflicts of interests, the quality of included information, patients' experience and strategic implications.

A positive linear correlation between the amount of staff-effort invested and the quality of HB-HTAs was found.

Conclusions

There is great variation in the quality of HB-HTA – both between countries and the different quality criteria. There is a need for increased focus on quality assurance of HB-HTA – without compromising the timeliness of these.

Key messages

- There is great variation in the quality of HB-HTAs
- There is a positive linear correlation between the amount of staff-effort invested in and the quality of HB-HTAs

Informational needs of hospital and clinical managers on investment in new health technologies

Mette Bøg

M Birk-Olsen, AM Ølholm, KK Kidholm, M Bøg
Odense University Hospital, Odense, Denmark
Contact: Mette.bog@rsyd.dk

Background

A number of guidelines exist about information to include in an Health Technology Assessment (HTA)(e.g. EUnetHTA Core Model). Compliance between HTA-guidelines and information needs of hospital managers is unknown.

The aim of the study is to determine which information hospital and clinical managers need and the relative important of it as a basis for decision making on investments in new technologies.

This study is part of the European research project (ADHopHTA) on Hospital Based Technology Assessment (HB-HTA).

Methods

A questionnaire survey to hospital and clinical managers in Europe (N = 339) assessing their need for information in decision making. 17 questions including Likert scale and ranking, constructed on behalf of the results of a systematic literature review (N = 14) and an interview study (N = 53).

Results

The most important type of information consideret is: Clinical aspects, safety aspects, the health problem of the patients and economic aspects. Political, social and ethical aspects are mentioned as important by 20% or less of the respondents. Clinical effektiveness: Both clinical outcomes and effekt size (81%) and quality of evidence (68%) are consideret as relevant information. Economic aspects: Hospital economic aspects are among the most important (52%) and societal economic aspects are less important (25%). Political and strategic aspects: Political aspects are not among the most important (4%) whereas the strategic aspects where consideret as important (29%).

Response rate: 49%.

Conclusions

HB-HTAs should focus on the clinical effectiveness, hospital economic aspects, safety and the health problem of the patients for th.. The description of the strategic aspect should be a part of the basis for decision making on investments in technologies at hospitals.

Key messages

- Knowledge of informational needs of the decision makers make more focused HB-HTA
- Focused HB-HTAs make it easier for the manager to make decisions on investments in new technologies

Compliance with the European care bundle improves Intubator-Associated Pneumonia control in the ICU

Antonella Agodi

A Agodi[1], F Auxilia[2], M Barchitta[1], MM D'Errico[3], MT Montagna[4], C Pasquarella[5], S Tardivo[6], I Mura[7], SPIN-UTI network, GISIO-SItI[8]
[1]Department ''GF Ingrassia'', University of Catania, Catania, Italy
[2]Department of Biomedical Sciences for Health, University of Milan, Milan, Italy
[3]Department of Biomedical Science and Public Health, Politecnica delle Marche, Ancona, Italy
[4]Department of Biomedical Sciences and Human Oncology, Hygiene Section, University of Bari Aldo Moro, Bari, Italy
[5]Department of Biomedical, Biotechnological and Translational Sciences, University of Parma, Parma, Italy
[6]Department of Public Health and Community Medicine, University of Verona, Verona, Italy
[7]Department of Biomedical Sciences, University of Sassari, Sassari, Italy
[8]SPIN-UTI network, GISIO-SItI, Italian Study Group of Hospital Hygiene - Italian Society of Hygiene, Preventive Medicine and Public Health, Italy
Contact: agodia@unict.it

Background

The implementation of care bundles for the control of Intubator-Associated Pneumonia (IAP) has been related with reduction of IAP rates, but results are conflicting. The objectives of the present study were to assess compliance with European bundle practices and its association with IAP incidence.

Methods

In the framework of the fourth edition of the SPIN-UTI project (2012-2013), the ''Italian Nosocomial Infections Surveillance in Intensive Care Units (ICUs) network'', a web-based survey was conducted using an online questionnaire filled out for each intubated patient admitted in the participating ICUs during the period January – June 2013. Data on prevention practices included in the European bundle (Rello et al., 2010) were collected. Compliance was calculated as the number of patients where compliance with a specific measure was observed divided by the total number of intubated patients.

Results

A total of 768 intubated patients, admitted in 15 ICUs were included. The highest compliance was achieved regarding the practice ''not changing ventilator circuits unless necessary'' (92.2%), followed by ''intracuff pressure control'' (87.5%), ''hand hygiene'' (80.6%) and ''oral care'' (70.4%). ''Sedation control'' was performed only in 43.6% of patients, which revealed the lowest levels of compliance. Overall compliance with all five practices has been reported in 21.1% of the included patients. A significant negative trend of IAP incidences was observed with increasing number of bundle practices performed. A strong negative correlation between these two factors was found ($r=-0.882$; $p = 0.048$).

Conclusions

The present study demonstrates that considerable improvements in infection control can be achieved with high compliance with the European bundle for IAP prevention. Therefore, efforts should be undertaken in continuous healthcare workers education in order to maintain high levels of compliance.

Project realized with financial support by Ministry of Health – CCM.

Key messages

- Compliance with all five practices of the European bundle has been reported in only 21.1% of patients
- A significant negative trend of the incidence of IAP was shown with the increasing number of bundle practices performed

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Use of a fluorescent marker for assessing hospital cleanliness

Emma Ceriale

E Ceriale[1], M Fattorini[2], D Lenzi[3], P Manzi[3], C Basagni[3], N Nante[1,2], G Messina[1]
[1]Post Graduate School in Public Health, University of Siena, Italy
[2]Department of Molecular and Developmental Medicine,University of Siena, Italy
[3]Medical Management, ''Le Scotte''Teaching Hospital, Siena, Italy
Contact: cerialeemma@gmail.com

Background

Scientific evidence indicates that contamination of hospital surfaces plays a role in the spread of healthcare-associated infections (HAIs). Hospital cleaning practices and methods for their assessment are important for HAIs prevention. Aims of the study were: i)to assess the daily cleaning procedures of different surfaces in hospital bathrooms with a fluorescent marker, ii)to study correlations between results obtained by this method and microbial contamination.

Methods

We enrolled 44 bathrooms of six hospital wards (A, B and C medical; D, E and F surgical) in which we analysed 218 surfaces (basin, toilet seat, flush button, inside door handle, light switch and floor). We applied a UV-fluorescent marker to these surfaces and the following day we assigned a score according how completely the marker had been removed. On the floor of each bathroom we also placed Petri dishes to assess bacterial colony forming units (CFU). The Wilcoxon test was used for comparisons between wards, Fisher's exact test for removal scores comparisons between different objects, Spearman's coefficient for correlations between CFU score and marker removal score.

Results

Ward F proved to be less clean than wards A ($p = 0.04$), B ($p = 0.003$) and E ($p = 0.002$). Medical units as a whole were cleaner than surgical units ($p = 0.0016$). Basins were cleaner than the other surfaces ($P < 0.05$), floors were dirtier than toilet seats ($p = 0.048$) and the latter were dirtier than door handles ($p = 0.013$). CFU score and mark removal score did not seem to be correlated.

Conclusions

Differences in cleanliness between wards and surfaces may indicate discrepancies in cleaning procedures. The UV marker proved to be a practical and effective method for checking the removal of dirt and dust. An early identification of inadequate cleaning practices allows the repetition of them until good hygiene standard are reached. UV marker could replace visual inspection, in a multistep process later including quantitative methods.

Key messages

- This paper assess the thoroughness of daily cleaning of different environmental surfaces in hospital bathrooms of an Italian teaching hospital, using a fluorescent marker as an outcome indicator
- This methodology is more objective than visual inspections, less expensive than microbial methods and easy to use. It could be included in a multistep control process of environmental cleanliness

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Hospital accessibility and clinical pathways for people with disabilities: an Italian survey

Nicola Panocchia

N Panocchia[1,2], M Marino[3], T Sabetta[3], M Cappelletti[2], A Finazzi Agrò[2], A Solipaca[3,3], A Battisti[4], W Ricciardi[3]
[1]Policlinico A. Gemelli, Università Cattolica del Sacro Cuore, Rome, Italy
[2]Spes contra Spem, Rome, Italy
[3]National Observatory on Health Status in the Italian Regions, Institute of Public Health - Hygiene Section, Università Cattolica del Sacro Cuore, Rome, Italy
[4]National Institute of Statistics, Rome, Italy
Contact: nicola.panocchia@rm.unicatt.it

Introduction

Several international surveys show the inadequacy of care received by people with disabilities in hospital, contrasting with universal right established by the ''UN Convention on the Rights of Persons with Disabilities''.

To verify the situation of the Italian hospitals, the social cooperative ''Spes contra Spem'', which developed the ''Charter of the rights of persons with disabilities in the hospital'', and the National Observatory on Health Status in the Italian Regions, promoted a survey.

Methods

A 10 questions form was sent to 813 Health Directorates of public, private accredited, teaching and in Local Health Units (LHU) hospital. The form investigates the presence of instruments, priority access, clinical care pathways, dedicated places and professionals, facilitating access and care of people with disability. The compilation was made through a web platform.

Results

The overall response rate was 19.8%: 53.4% in the North, 27.3% in the Center, 19.3% in the South. A rate of 60.2% among Respondents facilities (Rs) corresponds to hospitals in LHU. In 36.0% of Rs a priority access is provided to perform outpatient visits (45.5% in the center). In 16.8% of Rs there is a single point of access (20.9% in the North), while the case manager is present in 61.5% of Rs. Caregiver are allowed to stay over time 95.7% of Rs. In 70.2% of them, meetings between the hospital governance and associations of persons with disabilities occur.

No Rs has maps in relief for the blind, while only 10.6% are equipped with tactile path. As for the cognitive disability, only 12.4% of Rs equipped places or special paths in the Emergency Room and 21.7% in the hospital.

Conclusions

This first survey carried out in Italy to verify the clinical and organizational appropriateness of public hospitals for the care of people with disabilities, has highlighted a lack of participation, a general will to address the problem of hospital stay of the person with disabilities, serious organizational lacks.

Key messages

- International studies show the inadequacy of care that people with disabilities receive in hospital, contrasting with right established by the UN Convention on the Rights of Persons with Disabilities
- This first Italian survey highlighted a general will to address the problem of hospital stay of the person with disabilities along with a lack of participation and serious organizational lacks

A network-based surveillance approach to assess MRSA epidemiology in NICU, Palermo, Italy

Daniela Maria Geraci

DM Geraci[1], G Graziano[2], L Saporito[2], V Insinga[3], G Rinaudo[3], M Giuffrè[1], C Mammina[1]
[1]Department of Sciences for Health Promotion and Mother – Child Care ''G. D'Alessandro'',University of Palermo, Italy
[2]Post-graduate School in Hygiene and Preventive Medicine, University of Palermo, Italy,
[3]Post-graduate School in Pediatrics, University of Palermo, Italy
Contact: geracidaniela@yahoo.it

Background

Methicillin resistant Staphylococcus aureus (MRSA) is a major causal agent of infection in neonatal intensive care units (NICUs). Colonized neonates generally act as a reservoir fuelling cross transmission within/between NICUs.

Methods

Since February 2014 a network surveillance study is performed in five NICUs in Palermo, Italy, including the NICU of the teaching University hospital (NICU1) where a five-year long surveillance program is in place. The aim of our study was to assess MRSA colonization frequency and to describe local epidemiology. Nasal swabs were collected at four week-intervals and cultured on selective media. MRSA were typed by Multi Locus Variable Number Tandem Repeat Fingerprinting (MLVF), PCR for tst-1 and pvl genes, SCCmec characterization, MultiLocus Sequence Typing (MLST). Prevalences were compared by statistical methods.

Results

Mean yearly MRSA colonization prevalence was as follow: NICU1, 6.0 %, NICU2, 11.7%, NICU3, 3.1%, NICU4, 25.1%, NICU5, 26.0%. Prevalences significantly differed between NICUs. A tst1- positive ST22-MRSA-IVa strain was predominant in all NICUs, accounting for 68% (NICU4) up to 95% (NICU1) of MRSA isolates. Of interest, ST217-MRSA-IVh, ST1-MRSA IVa, ST5-MRSA-IVg and pvl positive ST80-MRSA-IVa were also detected. Most MRSA strains were shared between at least two NICUs.

Conclusions

Prevalences of MRSA colonization in the five NICUs under study were high, but significantly different. UK-EMRSA-15/ ''Middle Eastern Variant'' confirmed to be endemic in our NICUs. Moreover, transfer of neonates was epidemiologically linked to spread of some MRSA isolates within NICUs, supporting the need of a network-based surveillance approach.

Key message

- A network-based surveillance approach can be a helpful tool to understand local epidemiology of MRSA. Further investigations will clarify the cross transmission routes within NICUs

Results of a 2014 survey on clinical handoff among physicians in a North Italian Academic Hospital

Giulio Menegazzi

G Menegazzi[1], R Quattrin[2], A Moccia[2], C Londero[2], S Brusaferro[3]
[1]Postgraduate School of Hygiene and Preventive Medicine, Department of Medical and Biological Sciences, University of Udine, Italy
[2]Azienda Ospedaliero Universitaria ''Santa Maria della Misericordia'', Udine, Italy
[3]Department of Medical and Biological Sciences, University of Udine, Italy
Contact: giulio.menegazzi@uniud.it

Background

Transferring essential information and responsibility for patient care from one health care provider to another is an integral component of patient safety in a hospital. This study aims to collect physicians' interests and needs about handoff before the introduction of a hospital standardized tool in a North Eastern Italian Academic Hospital (AH).

Methods

From October to December 2014 all physicians working in the AH were asked to fill a web-based questionnaire concerning currently adopted methods to transfer patient information during shift change and their perception on handoff issues.

Results

Response rate was 10.5% (90/853). 63.3% (57/90) of physicians showed maximal agreement with the statement ''communication failures are related to adverse events'' and 40% (36/90) of them completely agreed that ''improving handoff makes work safer''. Among actually used handoff methods (total answers: 157), verbal communication was referred 45.2% times, written notes 26.1%, electronic supports 21.7%, standardized checklists 2.5% and instant messaging 2.5%. The most frequently reported obstacles to an effective handoff (127 answers) were interruptions (22.8%), absence of written hospital protocols (21.3%) and colleague's inability to provide further information when required (15%). Lack of communication with nurses was referred by 36.7% (33/90) of physicians. Respondents interested to test a new handoff procedure were 48.9% (44/90).

Conclusions

The low response rate and the fact that only half of respondents were interested in experimenting a new procedure stress the little relevance given by physicians to handoff as a key process for patient safety.

Furthermore, hazardous methods of transferring information such as verbal communication and non-structured text, combined with referred handoff obstacles, suggest the necessity of developing a hospital policy for clinical handoff between physicians.

Key messages

- This study highlights the scarce interest of physicians on the topic of clinical handoff
- Medical physicians are potential actors of change and need to be more involved in quality improvement

Mapping the state of the art of clinical risk management in a regional healthcare system

Pierfrancesco Tricarico

P Tricarico[1], L Arnoldo[1], A De Cristofaro[1], A De Odorico[1], C Londero[2], S Brusaferro[1]
[1]Department of Medical and Biological Sciences – University of Udine, Italy
[2]Accreditation, Clinical Risk Management and performance assessment Unit , Udine University Hospital , Italy
Contact: pierfrancesco.tricarico@gmail.com

Background

CARMINA (Clinical Assessment of Risk Management: an INtegrated Approach) is a self-assessment tool for Clinical Risk Management (CRM) developed and validated within the Italian National health system.; it is composed of seven Areas: 1)Governance, awareness and measurement; 2)Communication; 3)Knowledge and skills; 4)Safe and environment context; 5)Care processes; 6)Adverse event management; 7)Learning from experience. The tool has a total of 52 standards, each one built on progressive quality improvement steps from minimum essential standards to the higher showing continuous improvement.

The aim of the study was to test the capability of CARMINA to depict the state of the art of CRM in Friuli Venezia Giulia (FVG) region healthcare systems (HCS).

Methods

From 1st march to 30th april 2015 CARMINA was used by local Risk Managers for self-evaluation of CRM in 20 regional Organizations: 2 academic hospitals, 2 Scientific Institutes for clinical research (IRCCS), 11 hospitals and 5 nursing homes. The tool was administered through assisted interview to minimize interoperator variability.

Results

Areas one and five had minimum standards achieved by all Organizations while the most critical was Area six (where no Organization achieved all minimum standards).

On average, academic hospitals achieved minimum level in 96,1% of standards (50/52), reaching the maximum level of improvement in 40,3%(21/52); hospitals achieved minimum level in 82,6% (43/52), reaching the maximum level of improvement in 19,2 (10/52); IRCCS achieved minimum in 92,3% (48/52) and maximum in 25% (13/52); nursing homes in 76,9% (40/52) and 15,3% (8/52).

Conclusions

CARMINA highlighted the level of CRM development in FVG Healthcare System, offering hints for improvement to all the system and to single organizations too.

It highlighted the good results achieved in the governance and the processes managements but also emphasized the need for further efforts in nursing homes and in Area six.

Key messages

- CARMINA gave a picture of Clinical Risk Management in a regional healthcare system
- CARMINA provided clear hints for improvement and results achieved at regional level and by the single organizations

6.H. Pitch presentations:Inequalities, Work & Family Health

Wealth inequalities in loneliness among older people in Europe: the role of functional limitations

Claire Niedzwiedz

C Niedzwiedz[1], R Mitchell[2], J Pearce[1]
[1]Centre for Research on Environment, Society and Health, University of Edinburgh, Edinburgh, Scotland
[2]Centre for Research on Environment, Society and Health, University of Glasgow, Glasgow, Scotland
Contact: claire.niedzwiedz@ed.ac.uk

Introduction

Loneliness is increasingly recognised as a public health issue, especially among older people. Little is known about the social determinants of loneliness in a cross-national context. This study describes inequalities in loneliness among older people in Europe and explores functional limitations as a potential mediator.

Methods

Individuals (65+ years from 14 countries, N = 31,292) participating in the Survey of Health, Ageing and Retirement in Europe, collected during 2013, were analysed. Loneliness was measured by a validated 3-item scale, which asks about participants' feelings of isolation and lack of companionship. Current wealth was measured in quintiles and slope indices of inequality (SIIs) calculated. Functional limitations were measured by the number of limitations with activities of daily living (ADL) and instrumental activities of daily living (IADL). Linear multilevel regression models were calculated, controlling for confounders. The interaction between SIIs and region (Southern, Northern, Central, Eastern) were examined and direct and indirect effects from wealth to loneliness calculated.

Results

Loneliness decreased with increased wealth (SII=−0.22 95% CI: −0.28 to −0.17). Loneliness was highest in Southern and lowest in Northern regions. Compared to Southern countries, inequalities were narrower in all other regions, especially in Northern ($p = 0.008$ for interaction) countries. An increased number of ADL was related to a higher level of loneliness ($b = 0.26$ 95% CI: 0.25 to 0.28), IADL ($b = 0.23$ 95% CI: 0.22 to 0.25). ADL was estimated to mediate 23.87% of the total effect of wealth on loneliness, the equivalent result for IADL was 37.41% for which there was a larger indirect effect.

Conclusions

Inequalities in loneliness by wealth were apparent among older Europeans; largest in Southern countries. Functional limitations were related to increased loneliness and are a potentially important mediator on the pathway from wealth to loneliness.

Key messages

- The level of inequality in loneliness varied across Europe; largest in Southern countries
- Tackling wealth inequality and could help reduce associated inequality in loneliness

Diffusion model applied to assessment of children health impact

Beatrice Casini

B Casini, E Carnesecchi, M Totaro, G Privitera, A Baggiani
Department of Translational Research, N.T.M.S., University of Pisa, Italy
Contact: beatrice.casini@med.unipi.it

Background

Children are a high-risk group in terms of the health effects of air pollution. Aim of the this study was the assessment of children health impact associated with the activities of an incinerator in the Tuscany region, Italy.

Methods

The building for the nursery school (0-6 years) will be built about 2 km far from the incinerator. Air pollutants fallout was assessed by Gaussian model WinDimula (ENEA 1980) and meteorological data by mathematical WRF-Chem Model (NCAR). The estimate of air pollutants fallout were performed considering as computational domain a grid of size 4x4 km with 100 m step. Pollutions data used in our study are the emission levels of the 3rd quarter of 2014. The values obtained were first compared with the acceptability limits set by 2008/50/EU and WHO guideline levels (2005). Furthermore PCDD/F, PCB+PCT+PCN were evaluated according to WHO limits (1997).

Results

All of emission levels are below the limit values. The prevailing winds blew from east/south-east to north-west direction (20 %). Average temperature was 22°C, Pasquill atmospheric class was D. Reference points to assess pollutants fallout were represented by nursery school (A) and the area with maximum fallout observed (B). The average annual PM-tot value in point A was 0.02 µg/m3 and 0.1 µg/m3 in point B, both were below the limit of 10 µg/m3 (WHO 2005). The average yearly PCDD/PCDF value was 7x10-5 fg/m3 in point A, 5x10-4 fg/m3 in point B, both below the limit value of 16 fg/m3 (WHO 1997).

Conclusions

Gaussian models are considered to have high predictivity to evaluate pollutants fallout and they can serve to locate areas of expected high concentrations for correlation with health effects. Obtained results highlight no relevant risks for children; nonetheless it is necessary a more in-depth study on health impact assessment.

Key message

- Diffusion models can be employed in preconstruction evaluation of site for the location of new activities such as schools

First time mothers' age – is there a threshold for health problems and care use?

Reija Klemetti

R Klemetti, M Gissler, E Hemminki
National Institute for Health and Welfare (THL), Helsinki, Finland
Contact: reija.klemetti@thl.fi

Background

The average age at first birth has increased in Europe. In Finland, it increased from 26.5 years in 1987 to 28.5 in 2013, and 12% of first-time mothers were 35 years or more in 2013. Problems during pregnancy and childbirth increase by maternal age, but it is poorly known whether there are threshold ages and for which problems. This study examines threshold ages for various maternal and infant health problems and care use among first-time mothers.

Methods

Data of all first-time mothers aged 20 years or over with singleton pregnancies in 2005–2009 (N = 114 681) were obtained from the Finnish Medical Birth Register. To find threshold ages, the rates for each outcome at each age were calculated. To adjust for socioeconomic position and the urbanization of the living area logistic regression was used; women aged 20–24 were the reference group.

Results

Slight increase of health problems and care use by maternal age was found for most outcomes, but very rapid for Cesarean section, gestational diabetes, mother's long post-partum stay, and perinatal deaths. Following threshold ages for maternity care and interventions were found: many antenatal visits, instrumental delivery 27 years; long post-partum stay 30 years; induction of labor 31 years; inpatient care during pregnancy 35 years. No threshold age was found for Caesarean section. Only one threshold age was found for maternal health problems: 27 years for placenta praevia. No threshold age was found for gestational diabetes and hypertension. Threshold ages for infant outcomes were: low one minute Apgar scores 28 years; preterm birth 31 years; low birth weight, newborn's special care 32 years; respiratory care 35 years. No clear threshold age was found for perinatal deaths.

Conclusions

Most maternal and infant health problems and use of maternity care and interventions increased by age. For many there was a threshold age, but it varied notably from one problem to another.

Key messages

- Increase of maternal and infant health problems can start earlier than at 35 or 40 years
- Health care personnel should be aware of the importance of mother's age to be able to identify those, who need more careful follow-up

Exposure of pregnant women to phthalates and alternatives plasticizers present in medical devices

Cécile Marie

C Marie[1,2], S Hamlaoui[2], L Bernard[1,3], D Bourdeaux[1,3], V Sautou[1,3], D Léméry[1,2], F Vendittelli[1,2], MP Sauvant-Rochat[2,4]
[1]Centre Hospitalier Universitaire de Clermont-Ferrand, Clermont-Ferrand, France
[2]Clermont Université, Université d'Auvergne, EA 4681, PEPRADE, Clermont-Ferrand, France
[3]Clermont Université, Université d'Auvergne, EA 4676, C-Biosenss, Clermont-Ferrand, France
[4]Clermont Université, Université d'Auvergne, Faculté de Pharmacie, Département Santé Publique et Environnement, Clermont-Ferrand, France
Contact: cmarie@chu-clermontferrand.fr

Medical devices (MDs) can be a significant source of exposure to plasticizers, little known by health professionals. Di(2-ethylhexyl)phthalate (DEHP) was the most commonly phthalate used as plasticizer into the polyvinyl chloride (PVC) MDs (infusion bags, tubing, catheter, etc.). As its toxicity is now recognized, it is substituted by other plasticizers such as [di(isononyl)-cyclohexane-1,2-dicarboxilic acid (DINCH), tri-octyltrimellitate (TOTM), di-(2-ethylhexyl) terephthalate (DEHT), di-(isononyl) phthalate (DiNP), etc.]. To date, exposure of pregnant women to plasticizers of MDs is not studied. The aims of this study is to assess i) the proportion of pregnant women potentially exposed to plasticizers during hospitalization, and ii) the daily-exposure duration to plasticizers, depending on the reasons for hospitalization. In this cross-sectional study, 168 pregnant women hospitalized at the University Hospital of Clermont-Ferrand (52 in the group "Pathology" ("Patho"), 23 in the group "Pathology and delivery" ("P&Deli") and 93 in the group "Delivery" ("Deli")) were included. A PVC MD was used during hospitalization for 90% of the pregnant women. After analysis by GC-MS, DiNP, TOTM and DINCH were the main plasticizers of these MDs. The proportions of women exposed to DiNP, TOTM and DINCH were respectively 74%, 73% and 4%. For DiNP and TOTM, lower proportions in the group "Patho" was observed comparatively to the other two groups ($p < 0.001$). The women of the group "Patho" had statistically longer daily-exposure durations to DiNP (median: 3.4 hours/day) and to TOTM (8.2 hours/day) than those of the groups "Deli" (DiNP: 0.5 hours/day; TOTM: 2.9 hours/day) ($p < 0.01$). Our study is the first to highlight the exposure of pregnant women to plasticizers incorporated into the MDs. In the Public Health context, further studies are needed to specify the migration and toxicity of these alternatives plasticizers.

Key messages

- During pregnancy, women can be exposed to phthalates and alternatives plasticizers (DiNP, TOTM and DINCH) migrating from medical devices
- The duration exposure to plasticizers is linked to the reason for hospitalization, and the median exposure can reach 8.2 hours/day

Weight gain and subsequent physical and mental health functioning: a follow-up study among employees

Anna Svärd

A Svärd, J Lahti[1], M Mänty[1], E Roos[1], O Rahkonen[1], E Lahelma[1], T Lallukka[1,2]
[1]Department of Public Health, University of Helsinki, Helsinki, Finland
[2]Finnish Institute of Occupational Health, Helsinki, Finland
Contact: anna.svard@helsinki.fi

Background

Weight change is associated with poor subsequent physical health functioning, whereas the association with mental health functioning is poorly understood. This study aimed to examine whether weight gain among normal weight, overweight and obese female and male employees is associated with poor subsequent physical and mental health functioning.

Methods

The Helsinki Health Study baseline surveys were conducted in 2000–02 among 40–60-year-old employees of the City of Helsinki, Finland (n = 8960, 78% women). Follow-up surveys were conducted in 2007 and 2012 (response rate 70%). The participants were categorized according to their baseline body mass index (BMI) and their weight gain (BMI growth $\geq$5%) between baseline and first follow-up. Poor physical and mental health functioning were measured with the lowest quartile of Short Form 36 Health Survey. Logistic regression analysis was used to examine the associations between weight gain and physical and mental health functioning (2012). Covariates were age, sociodemographic factors, health behaviours, diagnosed diseases, strenuousness of work, employment status and prior functioning.

Results

One third (36%) of the employees gained weight. Weight gain among normal weight (OR = 1.81; 95% CI = 1.46-2.25), overweight (OR = 3.11; CI = 2.45-3.94), and obese (OR = 5.62; CI = 4.12-7.66) women was associated with poor physical health functioning. An association was also found among weight maintaining overweight and obese women. Covariates did not explain the associations. Weight gain among overweight (OR = 1.94; CI = 1.18-3.20) and obese (OR = 4.86; CI = 2.49-9.50) men was associated with poor physical health functioning, but the association for overweight men disappeared after adjustments. Weight gain and maintenance of high weight was weakly associated with poor mental health functioning only among women.

Conclusions

Weight gain might enhance the risk for poor physical health functioning among normal weight and overweight employees.

Key messages

- Preventing weight gain likely helps maintaining good physical health functioning and work ability
- After adjustments no association remained between BMI and subsequent mental health functioning

Towards an improved Family History collection in Pediatric Primary care: multi-dimentianal research

Elena Syurina

EV Syurina[1], *K Hens*[2], *FJM Feron*[3]
[1]Department of Health, Ethics and Society, Maastricht University, Maastricht, The Netherlands
[2]Centre for Biomedical Ethics and Law, University of Leuven, Leuven, Belgium
[3]Department of Social Medicine, Maastricht University, Maastricht, The Netherlands
Contact: e.syurina@maastrichtuniversity.nl

Introduction

Many childhood-onset (develop)mental disorders have both: genetic basis and environmental influence. Family history (FH) combines information about these types of factors. To date, the knowledge of these components is not widely used in paediatric primary care (PPC). We present the research line we investigated in order to understand the state of the art in the field. The focus of the research is on the mental and developmental disorders.

Methodology

Research started with systematic literature search in attempt to identify internationally validated tools for family history collection in PPC.

Second step was to research opinions and perceived knowledge of the PPC physicians about the utility of family history for their practice. This was done with the help of a short online-questionnaire.

Third research question concerns the knowledge and beliefs of the parents about the collection and use of the family medical background for the benefit of their children. This is being done through semi-structured interviews as well as more in depth online questionnaire.

Results

Systematic literature review failed to identify any validated tools for the PPC. Lots of the tools used in practice were never validated and deal with highly limited number of diseases (with mainly adult onset).

The survey among physicians yielded high response rate (303). Mean perceived importance of FH for work was 8.41 (out of 10), mean importance for the symptoms management was 6.86. However, there are gaps and inconsistencies in the knowledge about utility of FH information.

The investigation of beliefs of the parents is in the data collection stage, but already now we can say that there is lack of understanding of FH information and there is demand for the improvement of health literacy.

Conclusions

Family history is currently underrepresented both in research and practice in PPC, but is seen as important by all. The current findings set a solid base of development of the new tool for PPC.

Key messages

- FH is considered to be important by all stakeholders, but is underused. Many unexpected gaps of knowledge exist
- There are no tool in place for Pediatric Primary care. To develop them we need to take stakeholders' perspective in account

Drugs use in pregnancy and congenital anomalies: identifying potential risks in the East of Spain

Clara Cavero Carbonell

C Cavero-Carbonell[1], *S Gimeno-Martos*[1], *L Páramo-Rodríguez*[1], *MJ Rabanaque-Hernández*[2], *C Martos-Jiménez*[1,3], *O Zurriaga*[1,3,4]
[1]Rare Diseases Research Area. FISABIO-Public health, Valencia, Spain
[2]University of Zaragoza, Zaragoza, Spain
[3]Spanish Consortium of Epidemiology and Public Health Research (CIBERESP), Madrid, Spain
[4]Subdirección General de Epidemiología y Vigilancia de la Salud,Conselleria de Sanitat, Valencia, Spain
Contact: cavero_cla@gva.es

Background

Despite the potential risks of drug use during pregnancy, consumption has increased by over 60% in recent decades. Objective: To identify in pregnant women resident in the Valencia Region (VR) the risk of congenital anomalies (CA) associated with the use of drugs in ambulatory care.

Methods

Case-control study, considering case as less than one year old live births in 2009–2010, diagnosed with CA and resident in the VR, obtained from the Registry of CA. Two controls were selected for case from the Metabolic Disease Registry and drugs prescribed and dispensed were obtained from the Integral Management of Pharmaceutical Services, for cases and controls.

Crude odds ratio (OR) were calculated with 95% confidence intervals (95% CI) for the most frequent drugs and drug groups (established by Anatomical Therapeutic Chemical classification). And adjusted OR (by weight and gestational age, parity, and age, health department and country of the mother) were obtained using logistic regression, for all CA and by group of CA.

Results

1.913 cases were identified and 3.826 controls were selected. In cases and controls, the most frequently used drug groups were: those acting on the musculo-skeletal, nervous and respiratory systems, on the blood and blood forming organs and antiinfectives. And the most common drugs were: ibuprofen, dexketoprofen, paracetamol, amoxicillin, iron sulfate and the combination of folic acid.

The significant increase risk of CAs was identified for drugs acting on the musculo-skeletal system and adjusted OR was

1.14 [95% CI 1.02, 1.28], while a significant decrease risk was observed for drugs acting on the blood and blood forming organs with adjusted OR of 0.87 [95% CI 0.78, 0.98].

Conclusions

The prescription and dispensing of drugs in pregnant women can be used as exposure to potentially teratogenic drugs allowing the identification of associations with CA, both for drugs acting as a risk factor or as a protective factor.

Key messages

- Despite the potential risks of drug use during pregnancy, consumption has increased in recent decades
- The prescription and dispensing of drugs in pregnant women can be used as exposure to potentially teratogenic drugs

6.I. Pitch presentations:Vaccination & evaluation

Current vaccination status regarding measles among university students in Germany

Henna Riemenschneider

H Riemenschneider[1], J Schübel[1], A Bergmann[1], J Kugler[2], Voigt[1]
[1]Department of General Practice, Medical Clinic III, University Hospital Carl Gustav Carus, Technische Universität Dresden, Dresden, Germany
[2]Department of Health Sciences /Public Health, Medical Faculty, Technische Universität Dresden, Dresden, Germany
Contact: henna.riemenschneider@uniklinikum-dresden.de

Background

Germany aimed to eliminate measles by 2015 but the current measles outbreaks show that vaccination coverage is still insufficient, especially regarding adolescents and young adults.

Methods

This anonymous and self-administered cross-sectional survey focuses on vaccination status regarding measles and acceptance towards vaccinations among students of architecture, medicine, physics and sociology (1st to 3rd academic years).

Results

711 students (response rates: 80.6-85.5%) of TU Dresden participated in this study. Most of the students assessed vaccination in general as necessary. 50.9% of the total sample reported to be sufficiently vaccinated against measles; there were no significant gender or age related differences. More medical students (65.5%) compared to other students (25.3% - 39.4%) reported to be sufficiently vaccinated against measles. More than 45% of the students of the technical subjects vs. 33.5% of students of sociology and 12.6% of the medical students reported not knowing their own vaccination status.

Discussion and **Conclusions**

Although most of the students considered vaccinations as necessary, the vaccination coverage rates and knowledge regarding own vaccination status were alarmingly low. Since vaccination acceptance does not directly correlate with vaccination behavior, prevention programs should not just focus on information but should offer possibilities to accessible vaccination opportunities, i.e. vaccination at study place accompanied by prevention campaigns or as part of mandatory health-check-ups.

Key message

- The vaccination coverage rates and knowledge regarding own vaccination status concerning measles are alarmingly low among university students in Germany

Cost analysis of the first two year of universal mass vaccination against rotavirus in Sicily

Claudio Costantino

C Costantino, V Restivo, F Tramuto, F Vitale
Department of Science for Health Promotion and Mother to Child Care ''G. D'Alessandro''-University of Palermo, Palermo, Italy
Contact: claudio.costantino01@unipa.it

Background

Rotavirus vaccination (RV) is recognized by international health authority as the best strategy to prevent rotavirus gastroenteritis (RVGE) in children. Costs of RVGE were estimated in several studies and were classified into direct and indirect costs, that should be further divided into Health care and social perspective. This study aims to evaluate RVGE hospitalization costs in Sicily, before and after universal mass RV (UMRV) introduction.

Methods

Cases of RVGE were defined as all hospitalizations with an ICD-9-CM diagnosis code of 008.61 on any diagnosis position among children aged 0 to 59 months. Data were obtained from Hospital discharge records (HDR) of the Health Regional Office from 2009 to 2014. Direct and indirect costs of RVGE hospitalization for health care and social perspective were calculated on data reported in the REVEAL study. RV costs was extrapolated from a budget impact analysis published in 2013 by Vitale et al.

Results

In Sicily, during the pre-vaccination era (2009-2012) were reported 963 RVGE hospitalizations per year with a mean HDR cost of 1,521€ (1,465,000€ per year) , against 511 RVGE cases per year (mean HDR cost of 1,321€; 675,000€ per year) after UMRV introduction (direct hospitalization Health care costs). Moreover, direct and indirect hospitalization costs for social perspective was estimated 1.5 times bigger than direct hospitalization health care cost (pre-vaccination era 2,255,000€ per year, post-vaccination era 1,020,000€ per year). Finally, cost of RV vaccine in Sicily in 2013 and 2014 was 1,300,000€ per year (mean vaccination coverage 37%). In Sicily after RV introduction, every year was estimated a 46% reduction of RVGE hospitalizations and a 700,000€ benefit for Regional fund.

Conclusions

Despite low vaccination rate and even though the inability to evaluate the impact of RV vaccination on primary care and emergency access for RVGE, our study demonstrated the high cost-effectiveness of UMRV on hospitalization rate and costs in Sicily.

Key messages

- In Sicily after UMRV introduction was observed a 46% reduction per year of RVGE hospitalizations respect to pre-vaccination era
- Moreover, was reported a 700,000€ yearly decrease of RVGE direct and indirect hospitalization costs according to health care and social perspective

Effectiveness of MMR vaccination in prevention of hospital pediatric admissions: a cohort study

Angela Meggiolaro

A Meggiolaro[1], A Spadea[2], A Barbato[2], R Unim[1], G Saulle[1], La Torre[1]
[1]Department of Public health and Infectious Diseases, Sapienza University of Rome, Italy
[2]Local health Unit Rome A, Rome, Italy
Contact: angela.meggiolaro@uniroma1.it

Background

In this study, we examine the impact of Measles, Mumps and Rubella vaccination (MMR) on hospitalization for infectious events and respiratory diseases, among pediatric population resident in Local Health Unit of Rome A territories, in the two years following vaccination.

Methods

This retrospective cohort study enrolled children exposed and not-exposed to MMR vaccination, from 2009 to 2011.

The follow-up period was set up at 24 months, outcome measure was hospitalization for any infectious event arisen in cohort population during this period. Infectious diseases were classified according to ICD-9 codification system. MMR vaccine information were carried out from vaccine records of ASL RM-A; data on hospitalizations due to infectious diseases, in primary or secondary diagnosis, were extracted from hospital discharges database. Cohort was reassembled through record linkage of the two archives. A descriptive analysis of the sample was conducted. Univariate analysis and multivariate regression were carried on to find possible associations between socio-demographic factors, comorbidities and diagnosis of any infection. Cox model was performed($p < 0.25$). Statistical analysis was conducted using SPSS 21.0.

Results

The cohort study includes 11004 children in three year. 13 of them were hospitalized for infectious diseases vaccine-related (12 for measles and 1 for mumps). We found a protective effect of the vaccine for measles and mumps (RR = 0.12; 0.02 – 0.32). As far as concerns respiratory diseases, 809 children were hospitalized. We found a protective effect of the vaccine for respiratory diseases (RR = 0.20; 0.17 – 0.24).

Conclusions

Childhood MMR vaccine should be still recommended as public health prevention strategy. According to results achieved so far, MMR revealed a protective effect against targeted diseases, as well as a against non-targeted diseases, in particular respiratory infections. A further role on different infectious diseases should be investigated.

Key messages

- Measles, Mumps and Rubella vaccination prevents target diseases and hospitalization for respiratory infections in children. It should be still recommended as public health prevention strategy
- Extended effectiveness of MMR vaccination in preventing other diseases and parasitic generic infections should be further investigated

Public perception, knowledge and behaviour during a measles outbreak in the Netherlands in 2013–2014

Anja van der Schoor

AS van der Schoor[1,2]*, DJMA Beaujean*[1]*, A Wong*[3]*, A Timen*[1]
[1]National Institute for Public Health and the Environment, Bilthoven, The Netherlands
[2]Free University of Amsterdam, Amsterdam, The Netherlands
[3]Department of Statistics, Informatics and Mathematical Modelling, National Institute for Public Health and the Environment (RIVM), Bilthoven, the Netherlands
Contact: a.s.vander.schoor@student.vu.nl

Background

Despite an overall high Measles Mumps and Rubella vaccine coverage in the Netherlands, an outbreak of measles occurred in 2013–2014 among the unvaccinated orthodox protestant community, involving more than 2600 cases. During an outbreak, it is important to monitor knowledge and perceptions about the advised preventive measures with the aim to tailor communication activities and to identify the major determinants for compliance with the preventive measures.

Methods

An online follow up survey ($n = 648$) was conducted, to assess the general public perceptions, knowledge, preventive behaviour and media use on two points in time: at the beginning of the outbreak in June and at the expiration in October. Questions were based on the Health Belief model and research on citizen channel choice for medical information.

Preliminary Results

Between June and October, knowledge regarding measles increased significantly ($p < 0.001$) from 58.2% to 70.2%. Perceived severity increased significantly ($p < 0.001$) from 64.0% to 80.0%. There was an increased anxiety for becoming infected with measles, from 1.5% to 3.8%. The majority of respondents with a child younger than 14 months (69.1%) considered it (very) likely that they would have their child vaccinated in case of an outbreak. This was associated with having vaccinated children, own vaccine status, perception of the National Immunisation Program, perception of the measles and perception of vaccine effectivity. Respondents primarily obtained information via the television, news websites or the radio. Respondents who actively searched for information used the websites of the National Institute of Public Health, the Regional Public Health Office or Wikipedia.

Conclusion

Knowledge, perceived severity and anxiety increased significantly during the outbreak. Television, news websites and radio were the most important sources for obtaining information.

Key messages

- Knowledge and perceived severity increased significantly during a measles outbreak in the Netherlands in 2013–2014
- Television, news websites and radio were the most important sources of information

Evaluation of the 2014 Dutch smartphone app 'Tick Bite'

Desiree Beaujean

DJMA Beaujean[1]*, L Antonise-Kamp*[1,2]*, E Belfroid*[1,2]*, JE van Steenbergen*[1]*, R Crutzen*[3]
[1]National Institute for Public Health and the Environment, Bilthoven, The Netherlands
[2]University of Twente, Enschede, The Netherlands
[3]CAPHRI, Maastricht University, Maastricht, The Netherlands
Contact: desiree.beaujean@rivm.nl

Background

Tick bites and tick-borne infections are an increasingly large problem in the Netherlands. To support citizens in dealing with ticks and tick bites where and when they need it, a smartphone application 'Tick Bite' was developed and implemented. The content was based on requirements resulting from previous research. The purpose of this study was to evaluate user satisfaction, and to assess the effect of the app on inter alia respondents' knowledge, intention and behavior regarding prevention of Lyme disease (LD) and tick bites.

Methods

A follow-up survey with two data collection periods was conducted. Respondents were recruited via websites that focused on tick bites, LD, or websites from environmental organizations. After filling in the questionnaire, they were asked to participate in a second questionnaire, approximately 6 weeks later.

Preliminary Results

The first questionnaire was filled in by 555 respondents, the second by 239. The app scored (scale 1–10) on average a 7.44 (SD 1.22) during the first measurement, and 7.35 (SD 0.96) during the second measurement. Information about removal of ticks was considered most useful, and the tick radar least useful. 90.9% would recommend the app to others. Knowledge about measures to prevent tick bites and LD scored significantly higher in respondents who downloaded the app (scale 1–8) (5.51; SD 1.46), versus respondents who did not (5.11; SD 1.62; $p = 0.003$). The intention to take measures to prevent tick bites or LD (scale 1–7) of respondents who downloaded the app (6.21; SD: 0.95), was higher than that of respondents who did not (5.78; SD: 1.21, $p < 0.001$)).

Conclusion

User satisfaction of the app is high, and users would recommend it to others. App users had a slightly higher intention to take precautions compared to respondents who did not have the app. This study shows the app 'Tick Bite' is an effective tool in the education on prevention of tick bites and LD and it complements the current educational materials.

Key messages

- The mobile app 'Tick bite' that provides information about tick bites and Lyme disease, is an effective tool in the prevention of tick bites and Lyme disease

- User satisfaction of the mobile app 'Tick bite' is high, and it complements the current educational materials

Antimicrobial resistant bacteria in ready-to-eat foods from hospital and community in Rome, Italy

Matteo Raponi

P Laurenti, M Raponi, C De Meo, A Corsaro, R Sezzatini, S Vincenti, D Popovic, W Ricciardi
Institute of Public Health - Section of Hygiene, Università Cattolica del Sacro Cuore - Rome, Italy
Contact: matteoraponi85@gmail.com

Background

According to the 2013 ECDC report, antimicrobial resistance (AMR) significantly increased in Europe and it is now a serious threat to public health.

One of the main routes of transmission of resistant pathogens is represented by food, both animal and vegetable, whose raw materials are sometimes treated with antibiotics to maintain their characteristics.

The aim of the study was to examine the differences of AMR in Enterobacteriaceae isolated from ready-to-eat (RTE) foods between community and hospital canteens in Rome (Italy) and to consider the potential concerns.

Methods

RTE food samples were collected and analyzed according to the ISO 21528–1. The genus, species and the corresponding susceptibility tests were performed using ID32E^{TM} Automated System and ATB^{TM} strips read by mini API$^{®}$.

Univariate analysis was carried out to assess the associations between AMR, the setting and the type of food source.

Results

A total of 536 food samples (309 from community and 227 from hospital) were analyzed, 129 (24.1%) of all were positive for Enterobacteriaceae: 114 (36.9%) in community canteens and 15 (6.6%) in hospital ones.

Resistance to cephalothin was observed in 83.1% of samples, followed by cefuroxime in 54.8%, ticarcillin in 53.2% and cefoxitin in 50%.

The prevalence of samples with strains resistant to piperacillin ($p = 0.01$), cefuroxime ($p = 0.03$) and ticarcillin ($p = 0.05$) in the community was higher than in the hospital. AMR to cefuroxime ($p = 0.02$), meropenem ($p = 0.02$) and tobramycin ($p = 0.03$) in meat samples was higher than in the vegetable and mixed ones.

Conclusions

These findings suggest that RTE foods coming from animals are the preponderant source of resistant bacteria and the hospital environment is safer than the community one, concerning the spread of AMR through this route. It is essential to perform a stronger surveillance, especially in the meat production, to protect consumers from this public health hazard so as to guarantee them an effective antibiotic therapy.

Key messages

- The ready-to-eat foods, especially those of animal origin, take on great importance in the threat of antimicrobial resistance in the community
- The monitoring and the limitation of antimicrobial resistance in the community food production are crucial in fighting antibiotic resistant bacteria, particularly multi-drug-resistant strains

Food safety: enviromental contaminants transfer evaluation in highly polluted areas in Brescia IT

Carmelo Scarcella

C Scarcella, A Gregori, L Leonardi, G Orizio, F Speziani, G Tenchini
[1]General Direction, ASL Brescia, 2 Department of Veterinary Prevention, ASL Brescia, 3 Department of Medical Prevention, ASL Brescia
Contact: grazia.orizio@aslbrescia.it

Background

Since 2001 in Brescia, a city in the North of Italy with industrial and agricoltural important play, government and residents are facing the risk of living and working in a Persistant Organic Pollutants (POPs, ie: PCB and dioxins) and heavy metals (Hg, Pb, As, Cd) highly contaminated site, due to an old factory producing PCBs. To restrain public health risk of intaking these molecules by the diet, a legal measure limited till today lots of activities in polluted areas, mainly harvesting and breeding, unless in specific cases under Health Local Service (ASL) strict control. Limitations created enviromental decline and economic incoming decreasing. To know if it is possible to regain farmland use for managing enviroment, assuring economic incoming and ensuring at the same time the safety of fodder and livestock production, ASL of Brescia planned to evaluate certain contaminants transfer via feed to food.

Methods

Direclty in field during harvesting operations (August - September 2014), we collected corn kernels (16) and shreddered corn (6) samples. Harvesting tecniques had to striclty respect specific guidelines, designed to avoid soiling from the ground, the mainly contamination cause for the evaluated polluntants. Samples analysis was purchased by accreditated public health laboratories.

Results

Results were compared both to compulsory either raccomended levels setted in Reg. (CE) 277/2012 (POPs) and Dir. 32/2002/CE. Each report showed contaminants levels (POPs and heavy metals) clearly under both compulsory either raccomended levels. More over, by now, we analized two milk samples from cows fed with analized fodder: reports comply to Reg. (CE) 1881/2006. Fodder and milk sampling collection plan is going on even in 2015, in order to increase number of data about corn and gather new data about barley, soja and wheat.

Conclusions

Preliminary data demonstrate that by using specific tecniques it is possible to produce safe fodder even in contaminated areas.

Key messages

- The evaluation of environmental contaminants transfer via feed to food is fundamental in order to regain farmland use for managing enviroment, assuring economic incoming and safety of production
- Preliminary data of this study demonstrate that by using specific tecniques it is possible to produce safe fodder even in contaminated areas

Tracking not conventional faecal pollution indicators in a Turin waste water treatment plant

Deborah Traversi

D Traversi[1], V Romanazzi[1], E Lorenzi[2], G Gilli[1]
[1]Department of Public Health and Pediatrics, University of Torino, Torino, Italy
[2]SMAT – Depuratore di Castiglione Torinese, Società Metropolitana Acque Torino S.p.A., Torino, Italy
Contact: deborah.traversi@unito.it

Wastewater treatment plants (WWTPs) are an important source of surface water contamination by enteric pathogens. Moreover, they are a key point in the water cycle, affecting the role of environmental water as a microbial reservoir. This work was focused on not conventional faecal pollution biomarkers, and in particular on Methanobrevibacter smithii as a component of the human gut microbiome and on Clostridium difficile, a pathogen responsible for specific diseases that could no longer be considered restricted to hospital settings. The aim of the work is to track such biomarkers by bio-molecular methods in the waste water treatment plant effluents of Turin and describe their release into the environment.

20 water samples and 40 sludge samples, both influent and effluent, were firstly analysed by denaturing gradient gel electrophoresis (DGGE) for Bacteria and for Archaea.

Moreover specific targets were evaluated by real-time quantitative polymerase chain reaction (qRT-PCR). In particular the quantification of total bacteria, total methanogens, Methanobrevibacter smithii, Clostridium spp. and Clostridium difficile were performed.

The DGGE analysis showed a greater variability for the Bacteria respect to the Archaea. All the chose specific targets were quantified by qRT-PCR in the collected samples. For all the microbial targets, the abatement was at least of 2 log comparing influent and effluent samples, with highly significant differences ($p < 0.0001$). At the same time, there is evidence of microbial contamination of the effluent samples, this is an important indication of their dissemination potential. The data give us also an indication on the diffusion of Methanobrevibacter smithii and Clostridium difficile at the environmental level.

These results open a discussion on the implementation of possible techniques for a more efficient microbial removal from WWTPs effluents both water and sludge, to avoid the uncontrolled release of pathogens into the environment.

Key messages

- Wastewater treatment plant is a critical control point for water-related diseases, not conventional faecal pollution biomarkers were detected in the water and sludge effluents by bio-molecular methods
- Methanobrevibacter smithii and Clostridium difficile can be considered not conventional faecal pollution indicators, they are present both in influent and effluent samples

6.K. Pitch presentations:Health and healthcare of elderly

Validity of a Summary measure of Population Health – Global Activity Limitation Indicator: a review

Herman Van Oyen

H van Oyen[1], *N Berger*[2], *E Cambois*[3]
[1]Department of Public Health & Surveillance, Scientific Institute of Public Health, Brussels, Belgium
[2]Faculty of Public Health & Policy, London School of Hygiene & Tropical Medicine, London, UK
[3]Unités Démographie, genre et sociétés, Institut national d'études démographiques, Paris, France
Contact: herman.vanoyen@wiv-isp.be

Background

Global Activity Limitation Indicator (GALI) measures disability in terms of participation restriction. It lies at the basis of the European indicator Healthy Life Years (HLY). The objective of this paper is to review validity and reliability studies of GALI.

Methods

Expert consultation and database searches (Pubmed, Google Scholar, using keywords "GALI (excluding name)" and "Global activity limitation") identified 9 manuscripts. Studies were grouped by scope (national vs. international scope) and objectives: (1) association studies linking GALI to other disability measures (both objective and self-reported measures), (2) outcome studies linking GALI to mortality or health care use, and (3) reliability studies.

Results

There were 4 association studies. Two of them use international data, one of which uses objective measures. There was 1 health care expenditure study and 3 mortality studies (1 international). One reliability study looked at national data only. None of the studies indicated a validity failure. The international association studies concluded that GALI effectively captures limitations as measured by objective and self-reported measures and that this is valid for different countries. GALI is a good predictor of mortality. Its predictive power is linked to the severity of the limitations and decreases over time (10 years). GALI was an important predictor of health care expenditure even after adjustment for chronic conditions. The weighted Kappa as reliability measure was 0.68.

Conclusions

Evidence provided by a first (limited) set of different validation exercises suggests that (1) GALI, as global measure of participation restriction, is an instrument with sufficient validity and reliability, (2) GALI has an added value over complex measures of health and disability, as well as over general measures of health such as self-rated health. Further (inter)national validity and reliability studies are needed given the international use of GALI.

Key messages

- The Global Activity Limitation Indicator (GALI) measures participation restriction. GALI is an instrument with sufficient validity and reliability
- The Global Activity Limitation Indicator (GALI) is a valid Summary Measure of Population Health to estimate the Healthy Life Years within the EU and its Member States

Approach to mapping of health promoting interventions addressed to elderly persons

Marcin Grysztar

M Grysztar, A Kopec, M Rodzinka, M Duplaga
Department of Health Promotion, Institute of Public Health, Faculty of Health Sciences, Jagiellonian University Medical College, Krakow, Poland
Contact: m.grysztar@gmail.com

Background

The trend for ageing of modern societies is a growing challenge for health promotion. Consequently, there is a need for the intensified implementation of efficient interventions enabling senior citizens the best attainable health. This paper reports results of the analysis of the distribution of health promotion and related interventions (prevention, screening and social support) addressed to elderly persons. The study was undertaken in the framework of the ProHealth65+ (No 2013 12 10) and funded within 2nd Health Programme.

Methods

The scoping review was aimed at identification of systematic reviews focused on the assessment of the effectiveness of interventions within health promotion and related domains aimed at subjects at least 65 years old. The paper reports initial phase of the analysis following standard systematic review procedure based on the search results in MEDLINE database from the period 2000–2015. The records were retrieved according to the modification of PICO procedure, and the selection of publications pursued PRISMA scheme.

Results

The number of record retrieved in MEDLINE was 3252 papers; after consecutive steps of title, abstract and full text analysis 159 papers were accepted for further analysis. Health promotion was an area of intervention only in 44.0% of retrieved reviews, prevention in 73.0%, screening in 8.8% and social support in 9.4%. Most frequent target areas addressed by systematic review were physical activity (35.8%), specific medical conditions (28.3%), and quality of life (17.0%). The most frequent types of interventions according to taxonomy proposed by Issel were therapy (78.6%) and education (61.6%).

Conclusions

Among interventions targeting health of elderly persons, preventive measures prevail over health promotion activities. Most reported strategies tend to employ combined approach when addressing health areas in this target group.

Key messages

- Health promotion interventions addressed to elderly persons should be reinforced and systemised

- The gaps in target health-related areas relevant to this audience should be identified and approached

Nutrition and healthy ageing- is there a need for dietary recommendations for EU older adults?

Tsz Ning Mak

S Caldeira, F Mussio
European Commission, DG Joint Research Centre, Ispra, Italy
Contact: tsz-ning.mak@ec.europa.eu

The ageing population in Europe presents a public health challenge. Over 20 million older Europeans are at risk of undernutrition. Undernutrition and associated health complications cost the European health and social care systems around 120€ billion per year. Despite mounting evidence to support healthy diet in promoting healthy ageing and disease prevention, evidence-based dietary recommendations targeting older adults are not easy to find in the EU. DG Joint Research Centre, the European Commission's in-house science service, conducted a feasibility study on dietary recommendations for older adults in the EU. The study, involving experts in ageing, nutrition, public health, and policymakers from various EU countries, addressed three key questions; 1) is there a need for dietary recommendations for older people in Europe?; 2) what are the limitations or barriers to produce such recommendations?; and 3) what are the possible strategies to promote better diet for older people to reduce or prevent malnutrition in Europe? The result showed that older adults who are healthy may not need additional dietary recommendations, as the current recommendations for the general adult population may be sufficient, although attention should be paid to certain key nutrients e.g. vitamin D and protein. However, there is a need for dietary recommendations for specific groups of older adults who are no longer in good health. These subgroups should be defined depending on factors such as varying functional status, disease states, biological age, level of malnourishment, and stages of frailty. Older adults in these groups require different dietary requirements and therefore need specific and targeted recommendations according to their conditions. Furthermore, the experts identified and developed points for action for three main strategies to promote better diet and reduce malnutrition in older adults.

Key messages

- The older adult population is highly heterogeneous and the 'one size fits all' dietary recommendation approach is unlikely to work
- Multidisciplinary approaches in research as well as in practice (from screening, to detection, and to its management) to tackle malnutrition in older adults is needed

Prevention of adverse heat effects on elderly – a qualitative study among GPs in Germany

Alina Vandenbergh

A Vandenbergh, R Sauerborn
Institute of Public Health, University of Heidelberg, Germany
Contact: alina.vandenbergh@gmx.de

Background

Heat stress leading to morbidity and mortality is expected to increase in Europe, driven by climate change and aging populations. Although heat warning systems have been put into place, their translation into public health actions is often lacking. Therefore, this study explored how adverse heat effects (AHE) for the elderly can be prevented in general practitioners' (GPs) practices. It investigated 1) GPs' perceptions of heat health risks, 2) their current knowledge, attitudes and practices in AHE prevention and 3) potential GP prevention measures including barriers and facilitators for their implementation.

Methods

A qualitative approach of expert interview was chosen. 24 GPs from Baden-Württemberg were selected, using a purposeful maximum variation sampling. Interviews were transcribed verbatim and analyzed with the framework approach by Ritchie & Spencer using NVivo software.

Results

1) Perception of heat health risks and the risk attribution to climate change varied greatly among GPs. 2) GPs basic understanding of AHE and prevention was satisfying but the German heat warning system was completely unknown and GPs did not apply prevention measures systematically. 3) Potential prevention measures were identified and grouped into four fields of action: adaptation of practice processes, information of elderly and their carers, adaptation of medication, and contact measures during heat episodes. Common barriers to implementation were financial and temporal restrictions by the health system. Working with known work flows was perceived as facilitating.

Conclusions

The preliminary results show that GPs' awareness of heat health risks should be raised in order to engage GPs into AHE prevention. Low-regret measures such as delivery of information leaflets are more feasible than resource-intensive interventions and should therefore be fostered. Especially resource-intensive measures need to be embedded into routine work flows and be supported by the health system.

Key messages

- The German heat warning system needs to be publicized among health professionals like GPs. It should be translated into action by involving stakeholders on all levels, especially in patient care
- Heat health prevention should build upon existing work flows and professional networks. It should be considered within an integrated approach of health system strengthening

'NEO': open source to share analysis of multiple chronic diseases at different levels of governance

Fabrizio Carinci

F Carinc[1,2], S Gualdi[1], I Campa[3], F Lonati[3], R Gullstrand[1], P Francesconi[4], R Gini[4], E Verdelli[5], P Zuech[6], K Hinterlechner[6], P Fortuna[7], S Di Sabatino[1], C Nucera[1], G Dal Co[1], MG Marvulli[1], F Moirano[8], M Bellentani[1]
[1]AGENAS, Rome, Italy
[2]University of Surrey, Guildford, UK
[3]Local Health Authority (ASL) Brescia, Brescia, Italy
[4]Agenzia regionale di sanità della Toscana (ARS Toscana), Florence, Italy
[5]Local Health Authority Arezzo (USL 8), Arezzo, Italy
[6]Authonomous Province of Bolzano (Provincia Autonoma di Bolzano), Bolzano, Italy
[7]Local Health Authority Vicenza (U.L.S.S 6), Vicenza, Italy
8Regione Piemonte, Torino, Italy
Contact: f.carinci@surrey.ac.uk

Background

In 2011, the Italian Ministry of Health funded the Matrice Project to strengthen monitoring of multiple chronic diseases at population level. A specific interest was using linked administrative health databases to improve reporting at different levels. Here we describe the approach implemented for the statistical analysis of multimorbidity.

Methods

Multidisciplinary teams were formed involving experts from different backgrounds in the joint investigation of hypertension, diabetes, hyschaemic heart disease, heart failure and dementia in five local health authorities, with a view towards future expansion of range of diseases and geographical coverage. Specific functions, design and performance requirements of the target statistical software were identified within an specific architecture fit for processing individual health records without jeopardising privacy and data protection. Revised Venn diagrams were adopted to provide a holistic representation of overall quality of care across multiple conditions. A range of computing languages and tools eg Groovy, H2, Docbook and R was used for software development.

Results

The NEO application was successfully used throughout the project to deliver reports for peer auditing and central governance. NEO further refined the distributed approach realized in the EU BIRO project, where a two-level analytical strategy was used to process individual data locally, and send only aggregate data towards a central node, where the overall report is autonomously produced. Compared to BIRO, NEO further optimized the analysis of large datasets with minimal hardware and software requirements, allowing the production of national reports in a more flexible manner. The product is available at https://github.com/agenas/neo.

Conclusions

The product delivered can be fruitfully customized to tackle similar problems, particularly to address multiple chronic conditions and to deliver standardized reports in decentralized health systems.

Key messages

- The combined usage of innovative data models and computer applications can improve public health reporting, but requires strong support from a range of disciplines and stakeholders to be realized
- NEO can be fruitfully customized to tackle similar problems, particularly to address multiple chronic conditions and to deliver standardized reports in decentralized health systems

Telemedicine in the management of acute stroke:systematic review and meta-analysis of the literature

Chiara de Waure

D Nedovic[1,2], *GE Calabrò*[2], *M Delon*[3], *W Ricciardi*[2], *C de Waure*[2]
[1]Faculty of Medicine, University of Nis, Serbia
[2]Institute of Public Health, Università Cattolica del Sacro Cuore, Rome, Italy
[3]Faculty of Medicine, University of Belgrade, Serbia
Contact: chiara.dewaure@rm.unicatt.it

Background

Acute ischemic stroke (AIS) is a leading cause of death and disability and recombinant tissue plasminogen activator (tPA) may significantly reduce the long-term impact if given timely. A rapid assessment of the patient is therefore required. Notwithstanding many hospitals lack the stroke expertise and resources to timely manage patients. In this context, telemedicine facilities could be useful. The aim of this study was to perform a systematic review and meta-analysis to assess if telemedicine can be used in order to manage patients with AIS with a specific focus on the impact on mortality.

Methods

Longitudinal studies dealing with telemedicine facilities in managing AIS conducted before April 15th 2014 and published in English were searched in PubMed, Web of Knowledge and Scopus. The meta-analysis was performed to assess the impact of telemedicine versus standard approach in reducing mortality. Relative risk (RR) with 95% Confidence Interval was used to report results and the I2 to evaluate heterogeneity.

Results

Six studies were considered for the review for a total of 3,987 patients managed by either telemedicine (2,283) or standard approach (1,704). Four articles were clinical trials and two were cohort studies. Three studies addressed in-hospital mortality while all six dealt with 90 days mortality. The meta-analysis yielded a RR of 1.68 (95% CI 0.68–4.10) and 0.96 (95% CI 0.83–1.11) for in-hospital mortality and 90 days mortality respectively, without heterogeneity. A subgroup analysis considering only trials released a RR of 0.72 (95% CI 0.14–3.58) and of 0.94 (95% CI 0.81–1.10) respectively.

Conclusion

Our review showed no significant differences in terms of mortality between telemedicine and control groups even though results may be not considered conclusive because of the small number of studies. Because of these results and in the light of current organizational shortages, telemedicine may be used in order to manage patients with AIS.

Key messages

- Telemedicine does not improve survival of patients with acute ischemic stroke as no significant differences were shown in-hospital and 90 days mortality between telemedicine and standard approach
- Telemedicine is as an important tool in order to overcome organizational shortage but its impact on patients' health outcomes deserves to be further addressed by appropriate studies

Determinants of venous thromboembolic event rates after hip arthroplasty -international comparison

Bernard Burnand

JM Januel[1], *WA Ghali*[2], *PS Romano*[3], *RH White*[3], *PN Hider*[4], *C Colin*[5], *B Burnand*[6]
[1]Institut universitaire de formation et de recherche en soins, Lausanne University Hospital, Lausanne, Switzerland
[2]Department of Community Health Sciences, University of Calgary, Calgary, Canada
[3]Department of General Medicine, University of California Davis, Sacramento - CA, USA
[4]Department of Public Health and General Practice, University of Otago, Christchurch, New Zealand
[5]Pôle d'information médicale évaluation recherche, Hospices Civils, Lyon, France
[6]Institute of social and preventive medecine, Lausanne University Hospital, Lausanne, Switzerland
Contact: Bernard.Burnand@chuv.ch

Background

International comparisons of indicators of healthcare performance, quality and safety provide an important opportunity to explore reasons for their variations in order to find ways to improve both the indicators and the quality of care. We aimed to compare rates of hospital adverse events internationally and to investigate possible clinical and health system determinants of their variations.

Methods

We used hospital discharge diagnoses to measure rates of symptomatic venous thromboembolic events (VTE) in patients hospitalized for hip arthroplasty in Canada, France, New-Zealand, Switzerland and the USA. We used these coded diagnoses to measure VTE rates using an existing algorithm (AHRQ Patient Safety Indicator 12). We examined associations between VTE and gender, age, length of stay (LOS), number of discharge diagnoses recorded (Ndiag), and performance of ultrasonography before discharge (US).

Results

VTE rates were 0.84% in Canada, 1.41% in France, 0.84% in New-Zealand, 0.37% in Switzerland, 0.66% in the USA. Age, gender, LOS, Ndiag and US could have influenced VTE rates. For instance, France, where the highest VTE rate was observed, was also the only country with routine reported use of US before discharge (>17% vs <1% in other countries), which was even more frequent in private hospitals. The mean value of Ndiag was close to 7 in the USA, and varied between 2 and 3 in the other countries.

Conclusions

VTE rates varied across countries. These differences could be linked to differences in coding practices, as well as differences in clinical and health systems determinants (e.g., higher systematic US assessment in France and probable increased number of asymptomatic VTE coded). The interpretation of differences in international comparisons of healthcare associated VTE rates should be cautious; possible determinants of these differences should be considered.

Key messages

- Understanding and reducing heterogeneity in international comparisons of adverse events of healthcare is crucial
- Caution is needed when interpreting international comparisons of adverse events of healthcare

Impact of a multidisciplinary approach on mortality after hip fracture surgery in Tuscany, 2010–2013

Francesca Pieralli

F Pieralli[1], C Lorini[2], S Forni[3], A Sergi[3], A Vannucci[3], G Bonaccorsi[3]
[1]Specialization school in Hygiene and Preventive Medicine, University of Florence, Italy
[2]Department of Health Sciences, University of Florence, Italy
[3]Department of Experimental and Clinical Medicine, University of Florence, Italy
Contact: f.pieralli@gmail.com

Background

Hip fracture is an increasing public health concern. Since most hip fractures occur in fragile patients, an important advance in the treatment may be a co-managed, multidisciplinary treatment with orthopaedic surgeons and geriatricians. This multidisciplinary care model (MCM) is implemented in some Tuscan hospitals, while in hospitals with an usual care model (UCM), medical consultation is required only as deemed necessary by the admitting surgeon.

The primary aim of this study was to assess the effect of MCM on 30-day mortality, compared with UCM.

Methods

Retrospective study on patients with main diagnosis of hip fracture, as reported in the hospital admission discharges, aged 65 years and older, undergoing surgery in Tuscan hospitals from 1 January 2010 to 31 December 2013, has been conducted. A multilevel logistic regression model was performed to assess the effect of MCM vs UCM. The Charlson Comorbidity Index (CCI) was used as a proxy of case mix complexity.

Results

The number of patients included was 23,973: 23% men and 77% women; the mean age was 83.5 years. 9049 patients (37.7%) were in hospitals with MCM. The percentage of patients with a CCI of 1 or 2+ was significantly higher in the MCM. Early surgery was more frequently performed in the UCM (63% vs 54% $p < 0.001$). The multilevel analysis confirmed that mortality rate was significantly higher in the UCM, even after adjusting for gender, age, comorbidity and timing of surgery (OR = 1.32; 95% CI 1.09–1.59; p = 0.004).

There was no effect on 30-day mortality considering the interaction between organizational model, CCI and timing of surgery. Moreover, MCM had lower mortality rates independently from CCI.

Conclusions

MCM seems to be effective in the management of this condition despite early surgery was more frequent in UCM and patients treated with a multidisciplinary approach had more comorbidity. Implementation of this model in orthopaedic units may reduce mortality after hip fracture surgery.

Key messages

- Multidisciplinary approach to hip fracture had lower mortality than usual care model (UCM) despite early surgery was more frequent in UCM; delay in MCM may be caused by the need to stabilize patients
- Hip fracture co-managed care, that includes geriatricians and orthopaedic surgeons, leads to reduce mortality, this suggests to extend this model in all orthopaedic units

6.L. Pitch presentations:Food & Obesity

Socio-demographic determinants of obesity in a cross-sectional study of adults in Cyprus

Alexandros Heraclides

A Heracldes, O Kolokotroni, A Charalambous
University of Nicosia Medical School, Nicosia, Cyprus
Contact: heraclides.a@unic.ac.cy

Introduction

Obesity is one of the most important public health problems whilst its prevalence is increasing worldwide. Knowledge of socio-demographic determinants of obesity is important in designing targeted policies to reduce its prevalence and burden Aims: To investigate the prevalence and socio-demographic determinants of obesity in adults in Cyprus

Methods

This study was part of a health survey conducted in year 2009 amongst adults aged 24–65 years, using the Countrywide Integrated Non-communicable Diseases Intervention (CINDI) methodology. The study population was country representative and was selected based on a stratifying sampling approach. Height and weight were self-reported and obesity was defined as BMI> 30. Socio-demographic variables included age, gender, marital status, urbanization, occupational social class, family net income, employment status and educational attainment. Logistic regression models were used to investigate the association socio-demographic determinants and obesity adjusting for age and gender.

Results

The total number of participants was 3021 (46.1% male). The prevalence of obesity was 21.5% in males and 16.5% in females. Higher family net income and higher educational attainment were associated with reduced odds of obesity. For example university graduates were 2 times less likely to be obese compared to individuals that completed primary education (OR 0.43, 95% CI 0.26–0.72). Higher odds for obesity were associated with increasing age (p value for trend < 0.001) and with unemployment (OR 1.68, 95%CI 1.01–2.79) and being a housewife (OR 1.93, 95% CI 1.45; 2.57) as opposed to full time employment. Interestingly, individuals residing in rural areas had 30% higher likelihood of being obese compared to those living in urban areas (OR 1.30, 95% CI 1.06–1.59).

Conclusion

The prevalence of obesity amongst adults in Cyprus is high whilst indicators associated with higher socioeconomic position seem to be protective

Key messages

- Obesity prevalence in high amongst male and female adults in Cyprus
- Socio-economic factors are important predictors of obesity prevalence amongst Cypriot adults

Childhood overweight determinants related to the first year of life

Hugo de Sousa Lopes

H de Sousa Lopes, S Cunha, T Rodrigues
Public Health Department, Northern Regional Health Administration, I.P., Porto, Portugal
Contact: hugodesousalopes@gmail.com

Background

Overweight in school aged children is a public health problem that has risen in recent decades. Recently, factors related to the first year of life have been proven to be decisive in occurrence of obesity during childhood. We aimed to determine the effect of various determinants of the 1st-year-of-life, in the occurrence of overweight (pre-obesity and obesity) during childhood.

Methods

Weight and height were assessed by trained health professionals, according to WHO guidelines, in samples of children from sentinel schools (56 in 2008 and 68 in 2010 and 2013) of the Northern Region of Portugal, of three data points of a time series – 2008, 2010 and 2013. Food, health, social and demographic variables were collected by direct application of a questionnaire to parents. Risk assessment and statistical significance were performed by Logistic Regression analysis.

Results

Children (1272 – 2008; 1321 – 2010; 1511 – 2013) aged between 6–10years (mean: 7.2 ± 0.6) were evaluated. 60.9%, 59.0% and 64.7% (2008, 2010 and 2013 respectively) of children were normal weight, whereas 39.1%, 41.0% and 35.3% (2008, 2010 and 2013 respectively) were overweight. Weight at birth higher or lower than recommended represented a risk factor for overweight (2008: OR 1.5 – $p < 0.05$; 2010: OR 1.1 – $p = 0.698$; 2013: OR 1.1 – $p = 0.727$), as well as not breastfeeding or doing it only up to 5months (2008: OR 1.2 – $p = 0.231$; 2010: OR 1.2 – $p = 0.218$; 2013: OR 1.1 – $p = 0.673$). Protective factors were introduction of solid foods between 4–6months (2010: OR 0.97 – $p = 0.815$; 2013: OR 0.94 – $p = 0.688$) and formula feeding $\geq$ 6months of life (2010: OR 0.79 – $p = 0.178$).

Conclusion

These results point out determinants of overweight in childhood acting as risk factors, which can be targeted for preventive actions during the prenatal period and first year of life, as well as protective factors that determine normal weight, which are important to be promoted in pregnant women and infants.

Key messages

- Healthy habits during the 1st year of life have a clear impact on the child's weight development, reducing the occurrence of overweight in childhood
- Good control of fetus development in uterus, breastfeeding until 6 months of age and introduction of solid foods between 4–6 months can reduce overweight in childhood, avoiding weight deviations

Body mass index and waist–to-height ratio among Polish pupils with visual impairment –report 2014

Magdalena Wrzesinska

M Wrzesińska[1], B Urzędowicz[2], S Motylewski[3], L Pawlicki[4]
[1]Department of Psychosocial Rehabilitation, Medical University of Lodz, Lodz, Poland
[2]Department of Internal Medicine and Cardiac Rehabilitation, Medical University of Lodz, Lodz, Poland
[3]Department of Methodology of Teaching Motor Skills, Medical University of Lodz, Lodz, Poland
[4]Department of Internal Medicine and Cardiac Rehabilitation, Medical University of Lodz, Lodz, Poland
Contact: wrzesinska.m@wp.pl

Background

Obesity in young people with disabilities ranges between 18.4% - 40%. Visually impaired young people have limited access to various forms of health promotion programmes or physical activities. There is limited information about the prevalence of obesity, overweight and waist- to- height ratio (WHtR) among young blind people and those with low vision. The aim of the study was to assess the prevalence of overweight or obesity among pupils with visual impairment and the percentage of students demonstrating increased cardiometabolic diseases risk.

Methods

A total of 238 blind and low vision pupils aged 7–23 (mean 15.5 ± 3.9) attending special schools participated in the study. The majority (83.6%) were low vision persons and the rest were blind. Body mass index (BMI) results were interpreted in accordance with the IOTF in the 7- to 18-year-old group. Overweight was considered if $25 \leq \text{BMI} < 30$ and obese if $\text{BMI} \geq 30$. The subjects were diagnosed with increased cardiometabolic risk when $\text{WHtR} \geq 0.5$.

Results

18.5% of students were overweight and 7.1% obese and 31% of blind and 25% of low vision persons have excessive weight. Blind students are three times more at risk of being overweight than low vision students in the group of late adolescents ($ch^2 = 6.131$; $p = 0.013$). Every third male student and every fifth female student was found to have WHtR$\geq$ 0.5 ($ch^2 = 5.019$; $p = 0.025$). 87.9% of male students and 67.8% of female students with obesity and overweight had detected increased cardiometabolic outcomes ($ch^2 = 3.62$; $p = 0{,}057$). Normal weight and concomitant WHtR$\geq$ 0.5 was observed in males three times more than females ($ch^2 = 6.61$; $p = 0{,}019$). The blind pupils had three times more normal weight and concomitant WHtR$\geq$ 0.5 than low vision ($ch^2 = 1.68$; $p = 0.195$).

Conclusions

Males and the blind are at a higher risk of cardiometabolic outcomes and should be provided with treatment to avoid potential health and social costs in the future.

Key message

- Talking medical devices will facilitate work with the visually impaired. Cardiometabolic diseases preventative actions are necessary in the pupils with visual impairment

The variation and temporal changes of soft drink intake in the Capital Region of Denmark

Kamille Almer Bernsdorf

K Almer, A Helms-Andreasen, C Glümer
Research Centre for Prevention and Health, Capital Region of Denmark, Denmark
Contact: knie0421@regionh.dk

Background

To implement relevant public health strategies it is important to monitor the prevalence and temporal changes of specific risk factors for chronic diseases. This study aimed to: 1) to determine the temporal changes of soft drink intake in the Capital Region of Denmark from 2007 to 2013, 2) examine whether there is an association between intake of soft drinks and municipality deprivation, and 3) examine whether this association is modified by individual educational level.

Methods

Data from three health surveys in 2007, 2010 and 2013 in the Capital Region of Denmark was linked to data on sex, age and education from central registers. The study populations included residents aged 25–79 years, $n = 36476$(2007); $n = 49806$ (2010); $n = 41356$ (2013). Information on soft drink intake$\geq$3 times/week was derived from questionnaires. The 38 municipalities were categorised in 4 social classes (MSC 1–4) according to the distribution of income, educational level and employment status. MSC1 being the most privileged socioeconomical class. Logistic regression analyses were carried out and adjusted for age, sex and education.

Results

Soft drink intake decreased from 24% in 2007 to 13% in 2013. The intake is significantly higher in MSC3-4 compared to MSC1 (1,24(1,63-1,31) and 1,17(1,10-1,25)), however there were no differences in changes over time between the MSC groups. Individuals with low educational level living in deprived municipalities drink more often three or more soft drinks compared to individuals with low educational level living in privileged municipalities ($p > 0{,}0001$).

Conclusion

The prevalence of high soft drink intake has decreased substantially in the Capital Region of Denmark from 2007 to 2013. There is social gradient in intake across MCS groups. A social gradient is observed across individual educational level in each MSC. These findings suggest that intake of soft drinks may be influenced by neighbourhood factors such as culture and accessibility.

Key messages

- There is a social gradient in soft drink intake across municipality social class (MSC) and within each MSC across educational level
- Intake of soft drinks may be influenced by neighbourhood factors such as culture and accessibility

Small lunch restaurants do not follow nutrition recommendations in Finland

Enni Mertanen

E Mertanen[1], *AL Kallioinen*[2]
[1]JAMK University of Applied Sciences, Jyväskylä, Finland,
[2]Tavastia Vocational College, Hämeenlinna, Finland
Contact: enni.mertanen@jamk.fi

Workplace lunches are partly supported, eaten daily and thus their nutritional quality is important and can enhance public health. Even 328 million lunches were offered in workplace canteens and restaurants in Finland 2013. Nutritional recommendations guide menu planning, but the compliance is low in restaurants. No studies on small lunch restaurants are available.

The aim of this study was to assess the nutritional quality of meals offered and the availability of the healthy meals for customers in small lunch restaurants.

Methods

The data were collected from small lunch restaurants (n = 17) by interviewing chefs and photographing the buffet from the customer's perspective. All small lunch restaurants in Hämeenlinna were included in the study. The photos (n = 191) were analyzed by the criteria based on nutritional recommendation and previous research.

The results from the interviews showed that none of restaurants (0/17) calculated nutritional values or salt content of the meals. Only 4/17 restaurants used standardized recipes, but 7/17 calculated the prices. Salt exceeded recommendation, 8/17 restaurants used salt in vegetables and 15/17 in cooking rice, pasta or potatoes. The photos showed that none of the restaurants (0/17) provided nutrition or allergen information. Visible fat was observed in 13/17 and visible cream in 11/17 main meals. However, some healthy meal components were offered: oil based salad dressing (17/17), good salad buffets (15/17), right order in buffet (14/17), bread choices (14/17), low fat milk and warm vegetables (10/17).

Conclusions

The nutritional quality of meals offered in small lunch restaurants did not follow the nutritional recommendations and choosing healthy meals was difficult and often impossible. The results showed clearly that nutritional quality is neglected in menu planning and cooking, but salads were supporting healthy eating. Nutritional quality of daily meals wherever they are eaten should be good and enhance public health.

Key messages

- Small lunch restaurants should follow nutritional recommendations, provide customer information and offer healthy choices in order to enhance public health and health of workplace canteen customers
- Nutritional quality of lunch restaurants should be evaluated, and a nutrition policy is needed for workplaces to support only restaurants offering healthy lunches

Joint efforts against childhood obesity: EU Joint Action on Nutrition and Physical Activity 2015–2017

Viktoria Anna Kovacs

M Chauliac[1], *S Elreedy*[2], *K Vin*[2], *A Spinelli*[3], *M Hassapidou*[4], *K Balanda*[5], *E Martos*[6], *VA Kovacs*[6], *H Kuusipalo*[7], *as WP leaders on behalf of the JANPA consortium*
[1]French Ministry of Social Affairs, Health and Women Rights, Paris, France
[2]French Agency for Food, Environmental and Occupational Health & Safety, Maisons-Alfort, France
[3]Istituto Superiore di Sanita, Rome, Italy
[4]Alexander Technological Educational Institute Of The Salloniki, Thessaloniki, Greece
[5]Institute of Public Health, Dublin, Ireland
[6]National Institute of Pharmacy and Nutrition, Budapest, Hungary
[7]National Institute for Health and Welfare, Helsinki, Finland
Contact: viktoria.a.kovacs@gmail.com

Issue/problem

Despite actions at many levels, regular consumption of foods high in sugar, fat and salt, combined with more sedentary lifestyle have led to a worrying increase in childhood obesity over the past few decades in Europe. Although there is emerging evidence that the increase is slowing in a small number of countries, it is plateauing at very high levels. Unless properly addressed, the morbidity and disease burden will likely continue to rise and represent a serious burden to healthcare systems and to society.

Problem

Childhood obesity is a complex issue that requires integrated actions against several diverse contributory factors. In 2014, the European Union agreed to jointly respond to the challenge and adopted the 'Action Plan on Childhood Obesity 2014–2020'. In order to contribute, a Joint Action on Nutrition and Physical Activity (JANPA), co-funded by Member States and the 3rdEU Health Programme, was developed.

Results

JANPA will foster the discussion and sharing of good practices among 25 Member States using four technical work packages. As outcomes, JANPA will promote: 1) advocacy based on an estimation and forecast of economic cost of childhood overweight and obesity; 2) improvement in implementation of interventions to promote nutrition and physical activity for pregnant women and for families with young children; 3) to foster integrated actions in pre-school and school settings; and 4) to increase the use of nutritional information on food and diet by public health authorities, stakeholders and families as well as for nutrition policy purposes and to promote food reformulation.

Lessons

Establishing joint action against childhood obesity is an important step to demonstrate the shared commitment of Member States and to strengthen cooperation between policy makers, scientific experts and other relevant stakeholders from different sectors.

Key messages

- JANPA will support the Member States which are developing their policies and actions against childhood obesity, tailored to their national contexts and priorities
- JANPA will facilitate sharing knowledge and will develop tools for use by decision makers

Are eHealth interventions for obesity prevention effective? A systematic review of reviews

Marco Bardus

M Bardus[1,2], *J Smith*[1], *C Abraham*[1]
[1]University of Exeter Medical School, Psychology Applied to Health Group, Exeter, UK
[2]Università della Svizzera italiana, Institute for Public Communication, Lugano, Switzerland
Contact: marco.bardus@usi.ch

Background

In the last ten years, research on the use of technology for health promotion has produced an increasing number of studies and reviews. This paper aims to summarise the review evidence and assess its methodological quality, in order to draw conclusions about the effectiveness of eHealth interventions for weight management.

Methods

Systematic methods were used to identify and assess the review evidence about technology-based interventions for addressing behaviours associated with weight management and weight related outcomes. We searched 16 databases for articles published up to December 2014. Following a review protocol (PROSPERO: CRD42014010323), two reviewers independently selected review articles and applied the AMSTAR checklist to assess their methodological quality.

Results

We identified 16 systematic reviews that discussed the effects of interventions using both mobile and/or web-based technologies on weight management (12 narrative syntheses and four meta-analysis). All reviews provide suggestive, albeit mixed evidence of the effectiveness of such interventions.

The meta-analysis on social networking sites showed that interventions produced a modest, significant reduction in BMI. Few studies differentiated between web and mobile technologies, when evaluating intervention effects. Using the AMSTAR checklist, the average methodological quality was low, with only two out of 16 reviews being of high quality (one meta-analysis of B quality and one systematic review of A quality).

Conclusions

The available review evidence suggests that eHealth interventions may produce positive effects on weight-related outcomes. However, the evidence cannot be considered conclusive, due to limitations in the methodological quality of the reviews. Good quality review evidence is needed to compare the effectiveness across different delivery modes and examine whether the results are generalizable.

Key messages

- eHealth interventions might produce positive effects on weight-related outcomes, but the evidence is not conclusive
- Good quality review evidence is needed to examine in more detail the content of eHealth interventions, identifying which components are associated with larger effects

Highly integrated childhood obesity prevention programs: a systematic review with meta-analysis

Paolo Parente

P Parente, ML Specchia, A Barbara, C Cadeddu, W Ricciardi, G Damiani
Institute of Public Health, Section of Hygiene, Università Cattolica del Sacro Cuore, Rome, Italy
Contact: dr.paoloparente@gmail.com

Background

Childhood obesity (CO) is a global public health issu. 1 out of 10 children is obese or overweight, with differences among geographical areas. CO impact is impressive for morbidity, expectation of life reduction, direct and indirect costs. Integrated actions to face this issue are needed. Highly integrated prevention programs are proactive multi-tiers/multi-setting/multi-component interventions tailored to specified targets. The aim of this study is to assess these programs to highlight their effectiveness in reducing prevalence of overweight and obesity in childhood population.

Methods

A systematic review has been conducted up to February 2015. The search was performed querying Medline and Scopus databases through the keywords: prevention and control, childhood obesity, coordinated program, community based, integrated approach. Meta-analysis was carried out with RevMan 5.3. Begg and Egger tests, one-way sensitivity analysis, when appropriate, and subgroup analyses for different geographical areas were performed.

Results

Out of the 335 retrieved studies 25 were finally included describing 13 'highly integrated' community prevention programs all facing childhood overweight and obesity with a multi-component and multi-setting approach, based on diet and physical activity. Meta-analysis confirmed the reduction of overweight and obesity prevalence among the participants in the communities of intervention (RR = 0.90; 95%IC = 0.84–0.96) with a p for heterogeneity=0.01; $I^2 = 58\%$. Differences were found related to geographical area with a RR = 0.80 (95%IC = 0.64–0.99; p = 0.03; $I^2 = 72\%$) obtained for Europe and a RR = 0.80 (95%IC = 0.68-0.95; p = 0.004; $I^2 = 82$ %) for Australia.

Conclusions

Highly integrated targeted prevention programs have been shown to be effective in facing CO. The goal is to build an activated community in a single public health program coordinated across the partner organisations and the three different tiers (strategic, delivery, community) within a defined area.

Key messages

- Such highly integrated community programs can represent an important instrument aimed at fighting the obesity epidemic among children especially in countries where wellness is part of their culture
- Structured/multi component cooperation among health authorities, schools and communities in childhood obesity prevention is more powerful than a single action

6.M. Pitch presentations:Health risks at universities and other places

Prevalence, risk behaviors and motivations of electronic cigarette use among French college students

Marie-Pierre Tavolacci

MP Tavolacci[1], A Vasiliu[1], L Romo[2], Kotbagi G [2], L Kern[2], J Ladner[1]
[1]CIC-CRB1404 and INSERM 1073, Rouen University Hospital, Rouen, France
[2]EA 2931, CeSRM-UFR-STAPS-, Université Paris Ouest Nanterre la Défense, France
Contact: Marie-Pierre.Tavolacci@chu-rouen.fr

Objectives

To identify the prevalence of electronic-cigarette (e-cigarette) use and the health risk behaviors, motivations and beliefs about e-cigarette among college students in France.

Methods

A cross-sectional study was conducted in two major college students' campuses in France. The students filled in a questionnaire about the use of e-cigarette: 'never-users'' students had never tried e-cigarette, ''current users'' used e-cigarette during the past 30 days and ''ever-users'' tried e-cigarette but not during the past 30 days. Opinions of e-cigarette user and non user, targeted behaviors like smoking, alcohol consumption (AUDIT test and binge drinking), sports, eating disorders and socioeconomic data were collected.

Results

A total of 1134 students were included. The sex ratio (M:F) was of 0.45 with a mean age of 20.8 years. The prevalence of ever-use was of 23.0% 95%CI (20.5-25.3), of current use was 5.7% 95%IC (4.4-7.1). 14.6%. of college students were dual user (e-cigarette and tobacco). Smokers of conventional cigarettes represent 13.6% of never-users, 45.0% of ever-users and 73.8% on current users of e-cigarettes ($p < .001$). The behaviors associated with EC ever-use were current smoking (OR = 3.97, 95%CI = 2.71-5.83), cannabis use (OR = 2.44, 95%CI = 1.70-3.51), and occasional binge drinking (OR = 1.83, 95%CI = 1.28-2.64). EC current use was strongly associated with tobacco use (OR = 14.53, 95%CI = 6.81-31.02). Among the main motivations for e-cigarette users we found the intention to quit smoking (43.1%). 94.2% of never-users and 78.9% of users thought that the e-cigarette was harmful for oneself ($p < .001$)

Conclusions

One in four college students are interested in the e-cigarette, largely ever-user. They had an experimenter's profile with a sensation-seeking while the current users were mostly smokers. This information is important to target the students for different awareness and information campaigns.

Key messages

- One in four college students is e-cigarette user
- Two profiles of e-electronic cigarette were identified : experimentateur with substance associated use and current user mostly smoker

Prevention of seasonal affective disorder - systematic review and meta-analyses

Barbara Nussbaumer

B Nussbaumer[1], A Kaminski-Hartenthaler[1], CA Forneris[2], D Winkler[3], JH Sonis[4], BN Gaynes[2], J Wipplinger[1], C Morgan[5], A Greenblatt[5], LJ Lux[5], MG van Noord[1]

[1]Department of Evidence-based Medicine and Clinical Epidemiology, Danube University Krems, Krems Austria
[2]Department of Psychiatry, University of North Carolina, Chapel Hill, USA
[3]Medical University Vienna, Vienna, Austria
[4]Department of Social Medicine, Department of Family Medicine, University of North Carolina, Chapel Hill, USA
[5]Health Care and Outcomes Program, RTI International, Research Triangle Park, Durham, USA
Contact: barbara.nussbaumer@donau-uni.ac.at

Background

Seasonal Affective Disorder (SAD) is a public health problem affecting 1.5% - 9% of the population, depending on latitude. It is a seasonal pattern of recurrent major depressive episodes that most commonly occur during autumn/winter and remit in spring. The predictable seasonal aspect of SAD provides a promising opportunity for prevention. Light therapy, second-generation antidepressants (SGA), melatonin, agomelatine and psychotherapy are established interventions to treat acute episodes of SAD. However, little is known about the efficacy and potential harms of these interventions for preventing SAD. Therefore we conducted a systematic review that will be published as four Cochrane Reviews.

Methods

We searched electronic databases, trial registries and other sources (up to Feb/2015). We included RCTs on adults with a history of winter-type SAD. Two authors independently conducted study selection. When data were sufficient, we performed meta-analyses.

Results

From 2982 citations 4 RCTs met our inclusion criteria (3: SGA, 1: light therapy).

Overall, moderate quality evidence indicates that the SGA bupropion extended release (XL) is an efficacious intervention to prevent the recurrence of depressive episodes in patients with a history of SAD (RR 0.56, 95% CI 0.44 to 0.72; 3 RCTs, 1100 participants). Bupropion XL, however, leads to a higher risk of headaches, insomnia and nausea than placebo treatment.

Overall, low quality of evidence (1 RCT, 46 participants) indicates that the preventive use of bright light and infrared light reduce the incidence of SAD compared to no light therapy.

Conclusion

Evidence indicates that bupropion XL and light therapy can prevent recurrence of SAD. Given the lack of comparative evidence, the decision for or against initiating preventive treatment of SAD and the choice of treatment should be strongly based on patient preferences.

Key message

- Bupropion XL and light therapy are promising interventions in the prevention of SAD, a disorder with detrimental effects on an individual's life and on society. However, further studies are needed

Prevalence and pattern of performance-enhancing drugs use in a sample of British medical students

Anjum Memon

A Ridgway, I Haq, A Memon
University of Brighton, Brighton, UK
Contact: A.Memon@bsms.ac.uk

Background

Non-medical use of prescription drugs and stimulants for academic performance (i.e. neuroenhancement) is widespread among university students. Little is known about the use among medical students, who relatively have greater knowledge of, and access to, these substances.

Methods

We conducted an anonymous online cross-sectional survey to ascertain the prevalence, pattern and demographic correlates of neuroenhancing drugs use in a sample (n = 289) of British medical students.

Results

The lifetime prevalence of neuroenhancing drug use in this sample of medical students was about 14% (40/289); the last-12month and 30day prevalence was 9% and 3%, respectively. Of the 40 students who had used either one or more of these drugs, 16 (40%) had used beta blockers, 12 (30%) Modafinil, 9 (23%) benzodiazepines/sedatives and 7 (18%) had used Ritalin to enhance their academic performance. All these substances were used for exam preparation and/or during written/practical exams. Ritalin and Modafinil were commonly acquired over the Internet or from colleagues. Students typically only used one neuroenhancing substance, and use of a particular substance appeared to cluster within friendship groups. Students also used 'soft-enhancers,' including coffee, caffeine tablets, energy drinks and herbal sedatives. Lifetime use of neuroenhancing drugs was significantly associated with lifetime use of other (recreational) substances (i.e. alcohol, cannabis, cocaine, ecstasy, ketamine, magic mushroom, amphetamine and LSD).

Conclusions

This study, which is probably the first to ascertain the use of neuroenhancing drugs among British medical students, suggests a relatively lower prevalence and frequency of use compared to that reported among students in North America. Use of these substances could affect the health and wellbeing of students and impact their future prescribing patterns and attitudes.

Key messages

- Compared with other Western countries, British medical students probably have a lower prevalence of neuroenhancing drugs use
- Medical students need to be educated about effects and impact of substance use on their health and wellbeing, clinical practice and fitness to practice

Not too old to play games. Systematic review on pathological gambling among subjects over 50 years

Maria Rosaria Gualano

MR Gualano, F Bert, S Giacomelli, M Testa, R Siliquini
Department of Public Health Sciences, University of Torino; Torino, Italy
Contact: mar.guala@gmail.com

Background

Scientific literature indicates pathological gambling is increasing among adults over 50 years. In addition to traditional gambling, on line games lead the European gambling market with 6.8 million consumers and its revenues are expected to grow up to 13 billion in 2015. The aim of the present study is to systematically review the efficacy of the interventions against pathological gambling directed to people over 50.

Methods

Pubmed and Scopus scientific databases were used. Both observational and experimental studies written in English language, published from 1990 to 2014 and considering gamblers aged$\geq$50 years were thus included.

Results

Finally, from 237 articles retrieved, 15 studies matched our inclusion criteria. As results, four kinds of interventions were mainly observed: cognitive-behavioral therapy, pharmacological therapy, self exclusion and web-based counseling. The most effective intervention seems to be the cognitive-behavioral treatment, associated with pharmacological therapies only in worse pathological addictions (an efficacy of 70% after 16 weeks under treatment was reported on average).

Conclusions

The emerging issue of pathological gambling, especially among subjects over 50 years require several efforts and actions promoted by the governments involving casinos and online gambling providers also. Given the social responsibilities of this issue, the European public health agenda should consider this theme as a priority. Finally, considering the lack of information in the published literature, further studies are needed.

Key messages

- Because the high spread of gambling in Europe, the presence of central social policies is increasingly necessary
- Further studies are urgently required to have more information on this issue

Spiritual well-being: Linkages to physical activity motive and participation

Sunwoo Lee

S Lee
Faculty of Physical Culture, Palacky Univ. Olomouc, Czech Republic
Contact: sunwoo.lee@upol.cz

Background

Although studies have shown that people's spirituality is linked to the different health indicators, what is not known is whether physical activity participation is a determinant of people's spiritual well-being or spirituality contributes to the people's physical activity improvement.

Methods

Data were drawn from a sample of primary school pupils in Czech Republic. A total sample of 416 school pupils, age ranged from 11 to 15 years old, was analyzed for the study. A multiple questionnaire items were used to measure spiritual well-being, physical activity motive (health improvement), and activity engagement. Path analysis was used to test the hypotheses by examining the statistically significant standardized estimates of path coefficients among measured variables.

Results

Hypothesized model test showed that the measure of spiritual well-being did account for additional variance in people's motives to improve their health ($\beta = .219$, SE = .097, t-value = 3.763, $p < .001$), which in turn significantly influences the actual level of physical activity engagement ($\beta = .148$, SE = .049, t-value = 2.953, $p < .01$). However, we found that the spiritual well-being measure was not a significant predictor of people's physical activity engagement. The goodness of fit indices in a model indicated a good fit to the sample data: $\chi2 = 11.809$ (df = 8, $p < .01$), CFI = .996, NFI = .987, RMSEA = .034. Similarly, in the second hypothesized model, motivation to improve health significantly affected the physical activity participation, while there was no significant relationship between physical activity engagement and spiritual well-being.

Conclusions

Findings suggest that practitioners in health education and psychology should be mindful of the use of spiritual well-being interventions as a means to enhance motivation of physical activity participation among school-aged children.

Key messages

- Spiritual awareness facilitates children's interest and motivation in their health improvement
- Motivation to improve health condition positively contributes to the physical activity engagement

Problematic use of mobile phone and nomophobia among French college students

Marie-Pierre Tavolacci

MP Tavolacci[1], G Meyrignac[2], L Richard[3], P Dechelotte[1,3], J Ladner[1]
[1]CIC-CRB1404 and NSERM 1073, Rouen University Hospital, Rouen, France
[2]Department of preventive medicine, Rouen university Rouen France
[3]Department of nutrition, Rouen University Hospital, Rouen, France
Contact: Marie-Pierre.Tavolacci@chu-rouen.fr

Introduction

Identify problematic use of mobile phone (MP), nomophobia (« No mobile phone phobia ») and associated behaviors among French college students.

Methods

During the 2013–2014 university period, students from Upper-Normandy (France) filled in a self-administered anonymous questionnaire that has collected information on the ownership of smartphone and frequency of use of the MP (calling, texting and surfing the web). Frequency of awakenings at night by the MP, demands on availability by the entourage, perceived stressfulness of accessibility, and the anxiety caused by non-availability of a MP for a day (nomophobia) were measured with a 4-point Likert scale and comments of closed ones regarding too much time of MP use (Yes/No) were also collected. The students of the first quartile of score ($\geq 7/13$) were compared with other students.

Results

A total of 760 students have been included, the sex ratio (M:F) was of 0.44 and the mean age was of 20.0 years (SD = 2.4). 79.6% of the students had a smartphone. 12.3% of the students declared being woken up by their MP several times during the month, 13.6% must to be reachable 24/7, this accessibility was stressful for 11.3% of students, 31.3% were anxious caused by non-availability of a MP for 24 hours and 30.4% spent too much time on their MP. A higher score (Q1) was significantly associated with females gender AOR = 2.71 [1.55-4.74], cyberaddiction AOR = 3,68 [2,18-6.23], insomnia AOR = 3,19 [1.72-5.91] and high frequency of texting and duration of calling (respectively AOR = 2.53 (1.62-3.97) and AOR = 1.84 (1.19-2.85)).

Conclusion

Almost one in three college students suffered from nomophobia. The problematic use of the MP particularly affected women and was associated with cyberaddiction and sleeping problems. It would be interesting to assess how increased use of MP might negatively impact academic performance, mental health, and subjective well-being.

Key messages

- Problematic use of mobile phone is associated with other risk behaviors
- One third of college students suffers from nomophobia

Does cyberbullying relate with country indicators? An ecological study in 26 high income countries

Sara Soares

S Soares, S Brochado, H Barros, S Fraga
EPIUnit - Institute of Public Health of University of Porto, Portugal
Contact: saraisasoares@gmail.com

Background

Digital and technological communication experienced a pronounced development in the last years, with internet being widely used and playing a central role in youths and adults lives, all over the world. Adverse effects have also been increasingly recognized, with cyberbullying standing in the negative side of this recent progress. Besides individual characteristics, also social dimensions may influence the dynamics of cyberbullying. Thus, we aimed to extend such information to understand cyberbullying frequency, by correlating it with country-level indicators of socioeconomic and urban development.

Methods

Using a systematic review approach, a single study (the only available or the most appropriate according to a priori defined criteria) on cyberbullying prevalence was identified for each of 26 countries with at least one published eligible research. World Bank databases provided information to characterize those countries, regarding Urban population, Gross Domestic Product (GDP) and Gross National Income (GNI), Literacy rate, Secondary and Tertiary education, Fixed broadband Internet subscribers, Secure Internet servers, Internet users and

Mobile cellular subscriptions. Association was based on Spearman's correlation coefficients.

Results

The prevalence of cyberbullying varies across high income countries. We found negative correlations of cyberbullying (cybervicitms and cyberbullies-victims) prevalence with country socioeconomic and development indicators. These correlations are statistically significant between cyberbullies-victims prevalence and GDP ($r=-0.87$, $p<0.01$), GNI ($r=-0.73$ $p<0.05$), enrollment in secondary education ($r=-0.79$, $p<0.01$) and enrollment in tertiary education ($r=-0.78$ $p<0.05$).

Conclusions

Income and country education level seem to be major determinants of cyberbullying, with rich and more educated societies presenting lower levels of cyberbullying events among adolescents.

Key messages

- The prevalence of involvement in cyberbullying (victim or/and perpetrator) varies enormously even across high income countries
- Investments in education might represent a major contribution to decrease cyberbullying events among adolescents

6.N. Pitch presentations:Maternal and childhealth in Europe

Prematurity and parental needs

Mariana Amorim

M Amorim, E Alves, I Baía, S Silva
[1]EPIUnit – Institute of Public Health, University of Porto, Portugal
Contact: mariana.amorim@ispup.up.pt

Background

This mixed-methods study aims to assess parental needs in Neonatal Intensive Care Units (NICU) and its associated factors.

Methods

Mothers and fathers of very preterm infants hospitalized in all level III NICU located in Northern Health Region of Portugal were consecutively and systematically recruited between July 2013 and June 2014. Overall, 120 mothers and 91 fathers fulfil the NICU Family Needs Inventory. Four months after delivery, a sub-sample of 27 couples, 8 mothers and 6 fathers were interviewed. Mean differences (β) and respective 95% confidence intervals (95%CI) were estimated using multiple linear regression. Content analysis of qualitative data was carried out.

Results

Quantitative assessment revealed that parents' needs for assurance, proximity and information were the most valued. Women ($p=0.001$) and those without any previous pregnancy ($p=0.053$) were more likely to attribute a higher value to needs for information. Parental needs for support and comfort were considered more important by participants with ≤ 12 years of education ($p=0.033$ and $p=0.003$, respectively) and those who experienced a twin pregnancy ($p=0.041$ and $p=0.014$, respectively). After adjustment for sex, age and all statistically significant variables for each subscale, all associations described above remained statistically significant.

Qualitative assessment reinforced the need for information about daily ''insignificant'' procedures, NICU's rules and routines, burden associated with prematurity and changes on parental roles. The interviewees highlighted the need of support provided by health care professionals, peers and the Portuguese Government.

Conclusions

Mothers and fathers of very preterm infants admitted in NICU prioritize baby-centered needs. Parents-centered needs (comfort and support) are associated with socio-demographic characteristics. Family-centred care should be sensitive to these differences.

Key messages

- Parents of very preterm infants admitted in NICU prioritized the need for information, in particular mothers and those without a previous pregnancy
- Less educated and those with a twin pregnancy highlighted parents-centered needs of social support and comfort

'Paying mums to breastfeed' - can it work?

Clare Relton

B Whelan[1], M Strong[1], K Thomas[1], E Scott[1], S Easton[1], H Whitford[2], M Renfrew[2]
[1]University of Sheffield, Sheffield, UK
[2]University of Dundee, Dundee, UK
Contact: C.relton@sheffield.ac.uk

Background

The UK has one of the lowest breastfeeding rates (duration and exclusivity) in the world. Moreover, breastfeeding is strongly socially patterned with younger women in areas of higher deprivation being less likely to breastfeed. This study tested the feasibility of a financial incentive intervention to increase breastfeeding in areas with 6–8 week breastfeeding rates of 40% or less.

Methods

The intervention was the offer of a structured financial incentive scheme (supermarket and high street shopping vouchers up to a maximum of €275). If their baby was receiving breast milk when their baby was 2 days, 10 days, 6 weeks, 3 months and 6 months old, women could claim vouchers worth €55 each, at each time point. Breastfeeding was verified by signed statements from the mother and healthcare professional.

Starting in November 2013 the scheme was offered to women in three areas in Derbyshire and South Yorkshire who had babies born during a four month period. All the areas had persistently low 6–8week breastfeeding rates, ranging from 21 to 29%. The feasibility (acceptability and deliverability) of the incentive scheme and the study design to key stakeholder groups was assessed using quantitative and qualitative methods, prior to undertaking a full RCT. Thirty six healthcare providers and 18 women gave semi-structured interviews.

Results

Relevant approvals for the study were obtained. Women learnt about the scheme from their midwife and/or the media (print, radio, social media).

In total 122 women were eligible for the scheme. Of these, 58/122 (47.5%) joined the scheme, 48/122 (39.3%) claimed 2-day vouchers, 45/122 (36.9%) claimed 10-day vouchers and 37/122 (30.3%) claimed 6–8 week vouchers. Three and six-month data is still accruing. Fifty-three healthcare providers co-signed claim forms. Satisfaction with the scheme (including the method used to verify breastfeeding) was high amongst both mothers and healthcare staff.

Conclusions

The scheme was acceptable to mothers and healthcare staff in this field study. A randomised controlled trial testing the effectiveness of the scheme is now. Over 6,000 mums in 46 areas with low breastfeeding rates will be eligible to claim the shopping vouchers if they breastfeed. Breastfeeding rates will be compared with the results in 47 control areas.

Key messages

- The feasibility stage of this project provided early signs of acceptability and effectiveness of shopping vouchers scheme for breastfeeding in areas with low breastfeeding rates
- A large multi centre randomised controlled trial of the shopping voucher scheme is now underway with 12,498 mums in 83 areas with low breastfeeding rates in the UK

Prevalence and continuation of breastfeeding in Cyprus: the BrEaST start in life project

Mary Economou

M Economou, I Paphiti-Demetriou, O Kolokotroni, C Kouta, E Lambrinou, E Hadjigeorgiou, V Hadjiona, F Tryfonos, E Filippou, N Middleton
Department of Nursing, School of Health Sciences, Cyprus University of Technology, Limassol, Cyprus
Cyprus Breastfeeding Association – ''Gift for Life'', Cyprus
Contact: economoum80@hotmail.com

Background

The rate of exclusive breastfeeding for the first six months of child's life as recommended by the WHO remains relatively low even after international and national initiatives for the promotion of breastfeeding. Currently, the only data available from Cyprus are restricted to the first 48 hours from public hospitals even though as many as three quarters of all births are performed in the private sector.

Methods

A consecutive sample of 568 mothers who gave birth to a healthy full-term baby during the study period (response rate 70.8%) in all public hospital and 29 (of 35) private clinics on the island completed the 14 item breastfeeding self-efficacy scale – short form and were followed up by telephone in order to estimate the prevalence of breastfeeding at the first, fourth and sixth month after delivery.

Results

One in two women in public hospitals had a vaginal delivery, while in the private sector where the rate of vaginal birth did not exceed 37.3%. While initiation of breastfeeding within the first 48 hours was relatively high (85.6% private and 79.9% public sector), exclusive breastfeeding rates did not exceed 24.4% in the public and 17.3% in the private sector. Overall perceived maternal self-efficacy was only moderate at $M = 3.38$ ($SD = 0.89$) on a 5-point Likert scale and was lower in first-time mothers and mothers of higher educational attainment. Breastfeeding rates fell sharply even by the first month of birth while by the fourth month only one in three Cypriot mothers were still breastfeeding while only one in ten were exclusively breastfeeding.

Conclusion

Exclusive breastfeeding in Cyprus appears particularly low even while at the clinic, which causes particular concern and needs further investigation. Together with the fact that breastfeeding self-efficacy was rather low and cesarean rates rank Cyprus amongst the highest places in Europe suggests the pressing need for breastfeeding promotion interventions.

Key messages

- Caesarian rates are very high in Cyprus while exclusive breastfeeding is very low even within 48 hours
- Only one in three Cypriot mothers still breastfeed at four months after delivery

Non-access to vaccinations for the vulnerable children received by Doctors of the World in Europe

Nathalie Simonnot

N Simonnot, C Vuillermoz, F Vanbiervliet, M Vicart, P Chauvin
Doctors of the World - Médecins du Monde International Network, Paris, France
INSERM, Sorbonne Universités, UPMC Univ Paris 06, UMRS 1136, IPLESP, ERES, Paris, France
Contact: nathalie.simonnot@medecinsdumonde.net

Background

Since 2006, the Doctors of the World - Médecins du Monde (MdM) International Network Observatory has been conducting multicenter surveys in Europe among vulnerable people – the vast majority of whom are immigrants – who make use of its national programs, in order to describe their social and health-related characteristics and the obstacles to access to care, with the goal of informing the public authorities and European institutions and bringing about positive changes.

Materials and Methods

A cross-sectional analysis of routine data collected from 23,341 patients who availed themselves of the DOW's services in 26 cities in 11 countries in 2014 (Belgium, Canada, France, Germany Greece, the Netherlands, Spain, Sweden, Switzerland, Turkey and United Kingdom). . Of them, 652 were minors, and, 282 of them in 9 countries were asked about their immunization status. The MdM medical teams considered a minor vaccinated only upon presentation of his/her vaccination record.

Results

Only 43.3% of the minors seen at the MdM clinics had been vaccinated against tetanus, although 15.0% more had ''probably'' been vaccinated against it. This rate was even lower for whooping cough (41.0%), hepatitis B (40.0%) and MMR (35.8%). In addition, 40% of the patients had no idea where to go to get vaccinated.

Discussion

The analysis of the data collected from the children with multiple social vulnerabilities (especially, children of severely disadvantaged immigrants), together with an examination of the current national legislation, shows the extent to which these children's basic rights are still ignored in our countries. More than half of the children seen in our facilities are not protected against tetanus, whooping cough, MMR or hepatitis (with a risk of being excluded from the school system, where such vaccinations are a mandatory prerequisite). In 5 of the 11 countries, legal obstacles to vaccination are one of the main barriers, and in all the countries, there is a glaring lack of information on access to vaccinations.

Key messages

- More than half of the children seen in our facilities are not protected against tetanus, whooping cough, MMR or hepatitis
- In 5 of the 11 countries, legal obstacles to vaccination are one of the main barriers, and in all the countries, there is a glaring lack of information on access to vaccinations

Family socioeconomic transitions and child health in the Northern Ireland population

Mark Mccann

M McCann[1], A Maguire[2], J Moriarty[2]
[1]MRC/CSO SPHSU, University of Glasgow, Scotland
[2]Centre for Public Health, Queen's University Belfast, N. Ireland
Contact: mark.mccann@glasgow.ac.uk

Background

Childhood deprivation is a major risk to public health. Poor health in the early years accumulates and is expressed in adult health inequalities. The importance of social mobility - moves into and out of poverty, or indeed change in relative affluence - for child wellbeing is less well understood. Home ownership and house value may serve as a useful measure of relative affluence and deprivation.

Method

Analysis of the Northern Ireland Longitudinal Study dataset. Housing tenure and house value were reported in 2001 and 2011 identifying position on the housing ladder, and change in position over ten years. The outcome measures were physical disability and mental health status as reported in the 2011 Census. Logistic regression models tested if health outcomes varied by upward and downward changes in house value.

Results

After controlling for variations in age, sex, general health and social class, mental health is worse among those experiencing a decline in house value. Compared to 'no change', those moving from the upper quintile of house value into social renting accommodation were almost six times more likely to report poor mental health (OR 5.90 95% CI 4.52, 7.70). Conversely, those experiencing the greatest upward movement were half as likely to report poor mental health (OR 0.46 95% CI 0.31, 0.68). The association between downward (OR 2.66 95% CI 2.16, 3.27) and upward (OR 0.75 95% CI 0.61, 0.92) moves and physical health were much smaller.

Conclusion

Poor mental health is more strongly associated with declines in living standards than with improvements. The gradient appears at multiple points along this proxy affluence-deprivation spectrum, not only at the extremes. Further research should explore whether circumstances surrounding moves, or change in social position explains the differential association between the health correlates of upward versus downward mobility.

Key messages

- Downward family socioeconomic transitions are associated with poorer child health; upwards transitions do not confer as large an improvement
- Transitions at points along the wealth distribution, not only at the extremes, were associated with health outcomes

Child safety restraint usage in Romania - an observational study design

Diana Rus

D Rus[1,2], F Jurchis[1], E Baragan[1], R Chereches[1], C Peek-Asa[3], F Mocean[2]
[1]School of Public Health, Center for Health Policy and Public Health, College of Political, Administrative and Communication Sciences, Babes-Bolyai University, Cluj-Napoca, Romania
[2]Department of Community Medicine, University of Medicine and Pharmacy Iuliu Hatieganu, Cluj-Napoca, Romania
[3]Injury Prevention Research Center, College of Public Health, University of Iowa, Iowa City, USA
Contact: diana.rus@publichealth.ro

Background

Romania presently has limited policies and capacity to prevent child and adolescent injuries but also little data to document the consequences of not using appropriate child passenger restraint. Our aim was to document child safety restraint use and identify factors associated with proper child restraint in a motor vehicle.

Methods

An observational study on child safety restraint was conducted in Cluj-Napoca, Romania, between 2013 and 2014. Observational sites included 38 schools and kindergartens and 3 commercial areas, where drivers (n = 768) and child passengers (n = 892) were observed. Also, drivers were asked about their child safety restraint use, knowledge and attitudes towards restraint legislation and safety behavior (69.4%). Multivariate logistic regression was run to evaluate the correct use of child safety restraint.

Results

The majority of observed child passengers were in some type of restraint (n = 601; 67.4%). One third of the children (n = 305, 34.2%) were restrained in a child safety seat, almost 10% (n = 87) of children were restrained in a booster seat and 23.4% (n = 209) children wore a seatbelt. Of the total children seating in a car seat, only 14.8% (n = 45) were seating in a rear-facing position. Driver seatbelt use (OR = 3.84, 95%CI: 2.10-7.05) was associated with increased use of child safety restraint while children older than five (OR = 0.21, 95% CI: 0.13-0.34) and the driver's lower education status (OR = 0.55, 95%CI: 0.34-0.91) had reduced odds of children being properly fitted in a safety restraint.

Conclusions

Over a third of children observed were not wearing any type of occupant restraint. The study identifies areas of traffic safety legislation that requires improvement, like regulations on how to use booster seats or how to upgrade from one restraint to another which are missing from the Romanian Traffic Code. Data also brings evidence on the need to increase parents' education and raising awareness on how to properly restrain children in cars.

Key messages

- The proportion of children wearing a restraint was 67.4%, which is considered small when compared to other studies
- A small proportion of children travelling in child seats are rear-facing, although the scientific community recommends to keep children in rear-facing seats as much as possible

Wellbeing and smoking at Danish vocational schools: effects of a settings-based intervention, 2011–13

Susan Andersen

S Andersen[1], MH Rod[1], AK Ersbøll[1], C Stock[2], C Johansen[3], BB Sørensen[1], L Ingholt[1], JS Tolstrup[1]
[1]National Institute of Public Health, University of Southern Denmark, Copenhagen, Denmark
[2]Institute of Public Health, University of Southern Denmark, Esbjerg, Denmark
[3]The Danish Cancer Society Research Center, Copenhagen, Denmark
Contact: sua@niph.dk

Background

School dropout and health risk behavior represent major problems among students attending vocational education in Denmark and many other countries. Modifications to the social environment may promote educational attainment as well as the health and wellbeing of young people. However, there is a need for more evidence-based intervention programs. The aim of this study was to assess the effectiveness of a settings-based intervention (Shaping the Social) at vocational schools on student wellbeing and smoking.

Methods

We employed a non-randomized controlled trial of 5794 students (mean age 21 years; 81% male) in 10 (four intervention and six comparison) large vocational schools in Denmark. The intervention integrated social activities with professional learning and focused on four themes: introduction activities; daily class meetings; scheduled breaks; creating a pleasant non-smoking environment. Outcomes were student wellbeing (four subscales: student support, teacher relatedness, school connectedness, positive valuing of the profession) and daily smoking measured at 10-week follow-up. Multilevel regression analyses were conducted among the total study population and among students at risk at baseline.

Results

The school wellbeing scores were higher for intervention compared to control students, but a statistically significant effect was only found for school connectedness ($\beta = 0.22$, $p = 0.004$). The intervention had no effect on daily smoking among all students. However, among occasional smokers at baseline the intervention was associated with lower odds (OR = 0.44, 95% CI = 0.22-0.86) of daily smoking at follow-up.

Conclusion

Shaping the Social had positive effects on school connectedness. Moreover, the intervention was effective in preventing occasional smokers to become daily smokers. The study demonstrates that it is possible to tackle health risk behavior and school-related wellbeing in a high risk population through settings-based interventions.

Key messages

- Modifying the social environment at vocational schools has the potential to increase school connectedness and prevent occasional smokers from becoming daily smokers
- Given the high levels of health risk behaviors and school dropout among vocational students, vocational schools are an appropriate setting for targeting health and wellbeing among young people

6.O. Pitch presentations:Health Promotion: Campaigning for better health

Using a smartphone app for teaching Cardiopulmonary Resuscitation and the use of the defibrillator

Alex Morales

A Morales[1], E Ruiz de Morales[2], P Batlle[3], R Brugada[4]
[1]Dipsalut, Public Health Agency within the regional government of the Diputació de Girona, Girona, Spain
[2]University of Girona and Fundació Brugada, Spain
Contact: amorales@dipsalut.cat

Background

The set of actions to be taken in the case of cardiac arrest (CA) is called chain of survival and it is essential that people in the street know it and are able to do it. This is why a training project has been launched in 2015, which is aimed at a strategic group of people: 7,000 students in their fourth year of secondary school in the region of Girona.

The design of this training strategy provides access to a group of people which is represented in equal terms regarding gender, ethnicity and socioeconomic levels.

Objectives

To describe participation in the workshops on Cardiopulmonary Resuscitation (CPR), as well as the memory measures used. At these one hour-long workshops, all students have their own test dummy and defibrillation electrode pads. In groups of 40 students, two instructors show and explain the sequence of actions in the chain of survival and provide students with guidance during the practice.

The aim of this programme is for the students to quickly recognise the emergency (state of consciousness), activate the emergency services, learn the cardiac massage technique and use the defibrillator quickly.

To make it easy for the students to remember the actions, they have access to a phone app, in the form of a serious game based on overcoming challenges, in which the young students practice the actions they have learned at the workshop through repetition.

Results

60% of the workshops have been completed. From December 2014 to June 2015, a total of 130 workshops have been scheduled, in which 3,954 students are expected to take part.

Conclusions

Sudden cardiac death is 10 times more deadly than traffic accidents. With the aim of increasing the survival rate in CA, Dipsalut launched the project ''Girona, territori cardioprotegit'' (Girona, cardioprotected area) in 2011, the aim of which was to install up to 600 defibrillators in public areas, train people and raise awareness so that they would be used.

Key messages

- Public access to defibrillation enables people outside of healthcare to intervene in the assistance of victims of cardiac arrest
- Training is essential and game-based learning enables young people who are witness of a cardiac arrest to feel more capable of taking action

Factors influencing women partecipation in colorectal cancer screening

Gloria Bocci

Gloria Bocci[1], G Messina[1], N Nante[1], S Civitelli[2]
[1]Post-Graduate School of Public Health, University of Siena, Italy
[2]Department of Medical, Surgical and Neuroscience, University of Siena, Italy
Contact: glucialorenza@msn.com

Background

Colorectal cancer(CRC) is the 2nd most common cancer in women worldwide. In Italy, only 50% of individuals invited to use Fecal occult blood test(FOBT) it attended. Women's participation for breast and cervical screening is very high. More than 70% completed a mammography but the adhesion to FOBT is lower than the other two screening offered for free and the adhesion to colonoscopy is very low. The aim of the study is investigate the beliefs, feelings and psychological factors that could influence the behavior of women about participation in cancer screening(Colonoscopy and FOBT).

Methods

The survey was carried out in a center for cancer prevention in Siena, Tuscany, in 2011. A questionnaire, based on literature, was administered to 507 women attending mammography or clinical breast examination and it was administered to all age women but adherence to colorectal cancer screening was analyzed only for women age 50 years and older (207). We performed descriptive and bivariate analysis and we examined the association between participant characteristics, willingness and adherence to screening.

Results

Family history of colorectal cancer is associated with adherence to screening compliance (FOBT and colonoscopy) ($p < 0.0087$).The doctor's advice is significantly associated with adherence to colorectal cancer screening (both) ($p < 0.0001$). Women who perceived colonoscopy as a painful examination are less likely to be compliant to screening for CRC (colonoscopy) ($p < 0.0002$).The embarrassment is another factor related to colonoscopy compliance ($p < 0.0012$).

Conclusions

Embarrassment, pain and doctor's advice are the factors that correlated more strongly with adherence (or not) to screening. For the future is useful to implement information campaigns on colorectal cancer and refresher courses for general practitioners. A possible intervention for the future would be to hand before mammography or gynecological examination the kit for the collection of fecal occult blood.

Key messages

- Factors that influence woman's adherence to FOBT and colonscopy are embarassement, pain and doctor's advice
- To implement adhesion to screening is useful to hand before mammography or gynecological examination the kit for the collection of fecal occult blood

Implementation of healthy nutrition by using the empowerment approach (Germany, 2011–2015)

Berit Warrelmann

B Warrelmann, S Brandstetter, J Curbach, V Lindacher, J Rüter, J Loss
Department of Epidemiology and Preventive Medicine/Medical Sociology, Regensburg University Medical Center, Regensburg, Germany
Contact: berit.warrelmann@ukr.de

Background

Empowerment is the core principle of health promotion according to the World Health Organization and can be defined as the process by which people gain control over the factors that shape their health-related behaviour. Experience in using this approach in the field of healthy nutrition is very limited. This study explores opportunities and challenges when working with empowerment in this field.

Methods

Five groups with senior citizens (five to eight participants per group) were established in five rural communities in Bavaria, Germany. Regular group meetings were facilitated by the research team. Participants were encouraged to develop activities related to healthy nutrition. The qualitative multimethodological evaluation used interviews, focus groups and standardized field notes. A content analysis was conducted.

Results

Opportunities: In three out of five communities the groups succeeded in developing and implementing nutrition-related activities, e.g. organization of a cooking club, establishment of a community garden and improvement of shopping conditions in a supermarket. The participants' local knowledge facilitated co-operations with community stakeholders and a sustainable anchorage in local structures.

Challenges: Empowerment requires that participants express their own ideas, engage in activities that fit their needs and assume responsibility. This was a resource-intensive process, especially because participants expected an educational course format. Participants were not always comfortable with taking over responsibility. Successful activities required at least one highly motivated participant in a group.

Conclusions

Motivating participants to engage in self-chosen activities is arduous, but promising. The identification of motivated leaders is crucial for the success of bottom-up-approaches like empowerment.

Key messages

- Empowerment is an innovative and promising approach in the field of nutrition. It resulted in the initiation of community-wide changes towards a healthier food environment
- The use of empowerment in the field of nutrition is especially promising in terms of acceptance and sustainability of activities

Campaigning for a healthier diet: Evaluating the case of the Nordic ''Keyhole'' label 2014T

Trine Mørk

T Mørk, G Tsalis, KG Grunert
MAPP Centre – Research on Value Creation in the Food Sector, Department of Business Administration, School of Business and Social Sciences, Aarhus University, Denmark
Contact: tmork@badm.au.dk

Background and aim

Since 2009, the green ''Keyhole'' symbol has been a joint Nordic initiative for labelling specific food products. Each year, the Danish Ministry of Food, Agriculture and Fisheries designs a campaign with a different focus. 18.6 % of all Danish men have an unhealthy dietary pattern. In 2014, the primary focus of the campaign was on men over 35 with a low level of practical education. The campaign was designed to increase the men's purchase and consumption of food products labelled with the ''Keyhole''. This study aims to evaluate the campaign by measuring its effect on consumer behaviour in the store before, during and after the campaign.

Method

The evaluation was performed in two main stages. The first stage was in-store observations and interviews with customers in four retail stores and within two product categories. This stage was designed to measure the campaign's effect on behavior at the shelf. The second stage consisted of an analysis of sales data from six retail stores. This stage was designed to establish whether the campaign had an effect on the sale of Keyhole-labelled products in comparison with Non-Keyhole-labelled products.

Results

The campaign had a positive effect on the number of Keyhole-labelled products sold. Overall, the amount sold increased by 9.6 %. This positive effect varied between product categories and was largest for fresh fish, fresh fruits and vegetables, and frozen fish. The results also varied across all retail stores, and a higher relative price for Keyhole-labelled products resulted in fewer sales of these products.

Conclusion

The ''Keyhole'' campaign had an effect; the focal consumer – men over 35 men with low level of practical education – are now more likely to mention health as the reason for a purchase. It is also likely that the extensive multi-media campaign had by far greatest impact on the result. The long term effect of the campaign was not measured.

Key messages

- the Keyhole campaign increased the probability of health becoming a purchase criterion in consumers' decisions that they looked for information, and when they did, it was the Keyhole, they looked for
- Targeting a focal consumer can increase their intake of healthier foods,when using many promotional channels

Effects of partnering and parenting transitions on smoking continuity and change over 5 years

Jing Tian

J Tian[1], S Gall[1], T Dwyer[1,2], A Venn[1]
[1]Menzies Institute of Medical Research, Univeristy of Tasmania, Hobart, Tasmania, Australia,
[2]The George Institute for Global Health, University of Oxford, Wellington Square, Oxford, UK
Contact: J.Tian@utas.edu.au

Background

Young adults often make important life-stage transitions, including becoming partnered or having children. We examined the effects of partnering and parenting transitions on continuity or relapse of smoking in young Australians.

Methods

A cohort of 932 young Australians (aged 26–36) completed questionnaires at baseline (2004-06) and follow-up (2009-11). Marital and parental status and smoking were self-reported. Relative to those who remained single or childless, log binomial and linear regression estimated the effects of becoming partnered or having children on continuity or relapse of smoking, or change in daily cigarettes consumption, adjusting for age, sex, education, follow-up time and the other transition.

Results

Over 5 years, 176 (37.3%) smokers quit and 83 (18.0%) ex-smokers resumed smoking. Compared to those who remained single, people who became partnered or re-partnered were more likely to quit (RR = 2.18, 95%CI 1.43-3.35; RR = 2.80, 95%CI 1.59–4.95) as were those who remained partnered or separated/divorced/widowed (RR = 1.74, 95%CI 1.16–2.61; RR = 2.43, 95%CI 1.18–5.01), and people who became partnered or remained partnered were less likely to resume smoking (RR = 0.25, 95%CI 0.10-0.65; RR = 0.56, 95%CI 0.33–0.94). Relative to those who remained childless, people having their first child were more likely to quit (RR = 1.30, 95%CI 0.96–1.77) but not people having additional children (RR = 0.76, 95%CI 0.50–1.14), conversely, they increased daily cigarette consumption ($\beta = 2.13$, 95%CI 0.47–3.80).

Conclusions

Becoming or staying partnered and having a first child increased the probability of quitting or decreased the risk of resuming, whereas having additional children adversely affected smoking reflected by increased daily cigarettes consumption.

Key message

- Our data suggest that single smokers and parents having additional children warrant particular attention as they were most likely to continue smoking or increase their daily cigarette consumption

Adherence to dietary guidelines in FINDIET2012

Susanna Raulio

S Raulio[1], M-L Ovaskainen[1], S Männistö[2], H Tapanainen[1], S Virtanen[1,3,4], M Peltonen[2]
[1]Nutrition Unit, National Institute for Health and Welfare, Helsinki, Finland,
[2]Chronic Disease Prevention Unit, National Institute for Health and Welfare, Helsinki, Finland
[3]Finland, School of Health Sciences, University of Tampere, Tampere, Finland
[4]Research Center for Child Health, Tampere University and University Hospital and the Science Center of Pirkanmaa Hospital District, Tampere Finland
Contact: susanna.raulio@thl.fi

Background

Consumers are directed towards healthy eating by dietary guidelines, which have been recently updated in Finland. This study aimed to determine the adherence to dietary guidelines in Finnish adults and examine how social factors, lifestyle, healthy eating motives and obesity associate with the adherence.

Methods

The cross-sectional population survey (FINRISK 2012) was carried out with the aim of assessing cardiovascular risk factors. A random sample of adults aged 25–74 was drawn from the population registry of five regions of Finland. The participants filled in a health questionnaire including background data and 22 claims of motives for dietary behavior, from which seven were picked to determine a score for healthy eating motives. Food consumption was interviewed for two previous days (48-h recall) by educated interviewers. The average food consumption and nutrient intake was calculated and adherence score was produced according to nine criteria: the saturated and trans fatty acid, sucrose, salt, fibre, vegetables, berries and fruits, high-fat milk or sour milk, vegetable oils, red meat and meat products, and energy density of the diet. Cut-off limits were derived from national or international guidelines. Adherence to each dietary goal resulted in 1 point and summary adherence score varied from 0 to 9.

Results

The average adherence score was 2.9 (95% CI = 2.8–3.0) in men and 3.6 (95% CI = 3.5–3.7) in women. The goal of saturated and trans fatty acids was achieved only by 10% in total. Women had higher adherence score than men and they achieved the goal more often than men. Younger age, shorter education, smoking and northern residence were associated with lower adherence to dietary goals in both genders. On the contrary, dieting by low-energy diet was associated with higher adherence to dietary guidelines. The score for healthy eating motive varied parallel to the dietary guideline adherence score.

Conclusions

Only the small proportion of the Finnish adults achieves national nutrition recommendations. In nutrition education and health promotion understanding the barriers and motives to healthy eating are crucial.

Key messages

- It is challenging to achieve several dietary guidelines in daily diet
- More emphasis should be put on to develop new means for nutrition education to reach young and less educated men who are not motivated to follow dietary guidelines

6.P. Pitch presentations:Sustainability of health systems around the world

Medical management and the needs of doctors: case studies from Sweden

Ellen Kuhlmann

E Kuhlmann, Y Rangnitt, M von Knorring
Medical Management Centre LIME, Karolinska Institutet, Stockholm Sweden
Contact: ellen.kuhlmann@ki.se

Background

Health policy has strengthened the demand for collaboration between clinicians and managers and introduced new managerial roles. The reforms have created 'hybridisation' of management and professionalism, but little is known on the needs of hospital doctors in patient-care and those in management. This paper analyses the dynamics of medical management from an actor-centred perspective using a multi-level governance approach. The aim is to explore institutional gaps that constrain the new bonds between medicine and management, thereby increasing pressure on individual doctors.

Methods

The study is explorative and uses qualitative empirical material gathered in Swedish hospitals. Sweden is interesting because of its partnership-based governance with a highly integrated medical profession and new organizational positions of doctors in management. We use a case study design to explore the perceptions of hospital doctors through a bifocal lens of the 'managed' and the 'managing' doctors. Case 1 comprises participant observation and six in-depth qualitative interviews with doctors working in different departments of an urban hospital carried out 2013–15. Case 2 uses expert information and re-analysis of semi-structured interviews with 38 high-level hospital managers in 2007–08, selecting the managers with a medical professional background.

Results

The results reveal that bringing doctors into management does not automatically create better management. Medical managers are perceived as colleagues, and thus not valued for their management competencies and asked for advice, while the managers themselves feel as 'lonely wolf' lacking organizational support.

Conclusion

This paper adds new knowledge by revealing institutional paradoxes: bringing doctors into hospital management positions might even weaken the position of doctors in management and reduce the management support of doctors in patient-care.

Key messages

- Management is increasingly integrated in medical work but new manager roles do not adequtely respond to the needs of doctors
- Medical managers lack of organizational support

Recruitment and retention of health workers across Europe: a multiple-case study

Walter Sermeus

M Kroezen[1], W Sermeus[1], AM Rafferty[2]
[1]Department of Public Health and Primary Care, Catholic University Leuven, Belgium
[2]Florence Nightingale Faculty of Nursing & Midwifery, King's College London, UK
Contact: marieke.kroezen@kuleuven.be

Background

It is estimated that by 2020 there will be a shortfall of one million health workers in Europe. The European Commission's Action Plan for the EU health workforce (2012) identified staff recruitment and retention (R&R) as a key area for European cooperation. Yet up to now, there is no overview of R&R in the health sector across Europe. Our multiple case study offers insight in the development and implementation of R&R interventions, their effects, the role of various actors and facilitators and barriers at policy and organisational levels.

Methods

As part of the larger 'Study on Effective Recruitment and Retention Strategies for Health Workers', eight case studies on R&R – covering 40 interventions from 21 EU/EFTA countries and Australia – were conducted. Data was collected via desk research (n = 40), telephone and/or email interviews (n = 31) and site visits (n = 9). We performed thematic within-case and cross-case analysis.

Results

Not many R&R interventions have explicit goals that can be evaluated. Most measure their effects based on process data and often for a short-term. Most interventions are 'isolated' measures and not explicitly part of a coherent package of measures, although packages of measures are known to be more effective. Almost all interventions involve multiple actors from policy and organisational levels, sometimes in complex configurations. Where legal barriers have been found, these proved not unmanageable. Often, interventions are adjusted to fit the legal and labour market framework.

Conclusions

Across 40 cases studied, a list of good practices could be identified with relevance for R&R interventions across Europe. This included context-sensitivity when developing and implementing interventions, an incremental step-by-step implementation process, creating a support base for the intervention involving all relevant policy and organisational stakeholders, and thorough resource management.

Key messages

- Recruitment and retention interventions are highly context-specific and their features need to be adapted if transferred to different organisations and countries
- There is a rich reservoir of learning available in Europe for R&R of health workers and the list of good practices identified by our study can help countries in developing R&R interventions

Integrated care for the elderly: effectiveness, cost-effectiveness, sustainability of existing models

Marta Marino

M Marino, M Colotto, S Bucci, M Tanzariello, W Ricciardi, AG de Belvis, S Boccia
Institute of Public Health - Hygiene Section, Università Cattolica del Sacro Cuore, Rome, Italy
Contact: marta.marino@rm.unicatt.it

Background

With an aging population, caring for the increasing number of the complex elderly is one of the challenge for the healthcare systems. As they require a wide range of health and social care services, facing their needs, integrated care seem to respond to this issue, with collaborative working and integration of the various care system parts, improving the efficiency of care for patients, professionals and service providers. Our aim was to review the existing integrated care models for elderly, with regards to their effectiveness, cost-effectiveness and sustainability.

Methods

The systematic review was conducted accessing MEDLINE, EBSCO and Scopus database, using a combination of the following terms: Elderly, Frail Elderly, Comorbidity, Complex patient, Integrated care, Delivery of Health Care, Program Evaluation, Effectiveness, Cost analysis. References and related articles analysis was also performed. The risk of bias was evaluated by using the Cochrane tool.

Results

Among 127 retrieved papers, 14 were included. Seven randomized controlled trial resulted, six controlled before-after, and one cohort study. Six papers reported on the actual effectiveness of integrated models, seven the cost-effectiveness and one the cost-analysis. The overall risk of bias of the selected trials resulted low. Common feature of an effective integrated model were identified in case management, geriatric assessment and multidisciplinary team. A favorable impact on rates of institutionalization, but different evaluation on costs were found.

Conclusions

Our review shows that the development of community-based and cost-effective integrated system of care for the elderly are possible, thanks to the cooperation across care professionals and providers, achieving significant impact on hospitalization and efficient resource management. Element of success or failure are not always identifiable but the potential clearly exists for these models to be successful and generalized on a large scale.

Key messages

- The health and social care of the increasing number of complex elderly is one of the ambitious challenge for the healthcare systems, impacting the actual health care organization schemes
- Despite the different integrated care model experiences, research and practice should emphasize what really works in terms of effectiveness, cost-effectiveness and organizational outcomes

The USA's effort to reduce the uninsurance rate through the Affordable Care Act: Is it working?

Angelo Ercia

A Ercia
School of Social and Political Science, University of Edinburgh, Edinburgh, UK
Contact: aenercia06@gmail.com

Background

The health care reform called The Patient Protection & Affordable Care Act (ACA) of the USA was implemented in 2010. One of the major goals of the reform was to decrease the uninsurance rate by expanding public and private health insurance coverage. This study reviews recent published peer-reviewed and grey literature to determine the extent of the ACA's ability to reduce uninsurance rate after 2010 among low-income non-elderly adults and its outcome.

Method

CINAHL, Medline, GreyLit, and the US National Medical Library were systematically investigated to identify studies published between 2010–2015 that reported the changes of the uninsurance rate in the USA after 2010. Publications were included if it investigated the changes in health insurance coverage among low-income non-elderly adults (18-64 years). Outcomes as a result of expanding coverage were also included in the review.

Results

19 studies were included in the review. According to five national surveys that used representative samples, the uninsurance rate among non-elderly adults slightly decreased between 2010–2013. The age group 19–25 years had the highest decrease of being uninsured between 2010–2013. States that expanded public insurance (called Medicaid) had a higher reduction of their uninsurance rate compared to states that did not expand it. While more people are getting coverage, they are also confronting issues on being underinsured or falling in the coverage gap. Health care providers are anticipating the issue of meeting the increase of demand for care.

Conclusion

The ACA has begun to reduce the uninsurance rate in the USA since 2010, and the young adult population had the highest decrease of being uninsured so far. States that expanded public insurance also experienced higher decrease of their uninsurance rate. With the increase in demand for care, accessing care may become a problem due to limited providers.

Key messages

- The Affordable Care Act is reducing the uninsurance rate in the USA
- Outcomes of increasing people gaining coverage are: underinsurance, coverage gap, not meeting increase demand for care, need of more providers

Perceptions of continuity of care by the users of the healthcare systems in Colombia and Brazil

M Luisa Vazquez

I Garcia-Subirats[1], *MB Aller*[1], *I Vargas*[1], *AS Mogollón-Pérez*[2], *P De Paepe*[3], *MRF da Silva*[4], *JP Unger*[3], *ML Vázquez*[1]
[1]Health Policy and Health Services Research Group, Health Policy Research Unit, Consortium for Health Care and Social Services of Catalonia, Barcelona, Spain
[2]Escuela de Medicina y Ciencias de la Salud. Universidad del Rosario, Bogotá, Colombia
[3]The Prince Leopold Institute of Tropical Medicine, Antwerp, Belgium
[4]Universidade de Pernambuco, Recife, Brazil
Contact: mlvazquez@consorci.org

Background

Continuity of care (CC) is the degree to which the patient experiences care over time as coherent and linked. Three types of CC are identified: relational, informational and managerial. The aim is to determine the degree of continuity of care between primary (PC) and secondary care (SC) and to identify the associated factors in Brazil and Colombia, countries with different health systems.

Methods

Cross-sectional study by means of a population survey in Brazil (Pernambuco, $n = 465$) and Colombia (Bogota, $n = 609$) in 2011. Users of health services of public health systems of each country were analyzed. Outcome variables: synthetic indexes on relational, informational and managerial CC. Explanatory variables: sociodemographic characteristics and health. Descriptive analysis and multivariate logistic regression models were performed.

Results

Relational CC was higher in Brazil than in Colombia both for PC physicians (82.2 and 72.9%, respectively) and for SC physicians (82.4 and 70.1%, respectively), but the perception of a good information transfer (informational CC) is lower (56.3 and 67.6%, respectively). No differences in the perception of consistency of care (managerial CC) were found (around 70%). Among the associated factors with CC, the following stand out: in Brazil, age (elderly) and area (Caruaru, remote town) was associated with any type of CC. In both countries, poor self-rated health was associated with lower levels of relational CC and in Colombia, also, with clinical management CC. In addition, in Colombia, having at least one chronic disease was associated with higher levels of any type of CC and sex (female) with a continuous relationship with PC physicians and informational CC.

Conclusions

The level of perceived relational and managerial continuity is high, and of informational continuity, low. Factors associated with the perception of continuity of care differ by countries and type of continuity of care.

Key messages

- It is the first attempt to evaluate the three types of continuity of care in areas of Colombia and Brazil
- The understanding of the factors associated with the continuity of care will reveal which aspects of the public health system could be improved

Leisure time activities trajectories and physical functions among older adults in Taiwan

Hsiao-Wei Yu

Hsiao-Wei Yu[1], *Duan-Rung Chen*[1], *Tung-Liang Chiang*[1], *u-Kang Tu*[2], *Ya-Mei Chen*[1]
[1]Institute of Health Policy and Management, National Taiwan University, Taiwan
[2]Institute of Epidemiology and Preventive Medicine, National Taiwan University
Contact: d00848008@ntu.edu.tw

Background

We aimed to identify trajectories of leisure time activities (LTAs) and how these trajectories predicted physical function among older adults in Taiwan.

Methods

Longitudinal and nationally representative data from four waves of Aging Study in Taiwan, collected between 1996 and 2007, were used for analysis ($n = 3186$). The LTAs trajectories, modeled using activities such as visiting friends and talking a walk (8 items), were identified by applying latent class growth curves modeling. The outcome measure from 2007 survey, physical functions, was assessed by activities of daily living and instrumental activities of daily living. Multiple regression analyses were applied to examine whether different patterns of LTAs trajectories had different impacts on physical functions in older adults.

Results

Four LTAs trajectories- active, becoming active, becoming sedentary and sedentary- were identified. Older adults who engaged in active LTAs trajectory ($\beta = -3.23$, $p < .001$), and those who were identified in becoming active LTAs trajectory ($\beta = -2.75$, $p < .01$), significantly predicted better physical functions in their later life comparing to older adults in sedentary trajectory. However, those older adults who were identified in becoming sedentary LTAs trajectory ($\beta = 2.83$, $p < .001$) were more likely to develop functional disabilities comparing to older adults in sedentary trajectory.

Conclusion

LTAs patterns significantly contribute to a better physical function in older adults. Older adults who participated in greater LTAs even they were inactive in the earlier life might still predict a better physical function in their later life. Thus, encouraging older adults to behave LTAs seems to be a good strategy for active aging. The mechanism of why older adults in becoming sedentary LTAs trajectory were more likely to develop difficulties in physical functions than those in sedentary trajectory requires future studies.

Key messages

- Different patterns of LTAs trajectories might predict older adults' physical functions in their later life
- Encouraging older adults to behave LTAs seems to be a good strategy for active aging

Moonlighting and academic achievements of medical students in Moscow

Oxana Gatsura

O Gatsura, *R Kudryavtseva*, *S Gatsura*
Moscow State University of Medicine and Dentistry named after A.I.Evdokimov, Moscvow, Russia
Contact: oagats@mail.ru

Background

It is quite common for full-time medical students in Russia to work part-time (‘‘moonlight’’), but the relationship between part-time employment and academic progress remains controversial. According to the widespread opinion such moonlighting distracts future physicians from their studies and thus is harmful. Others believe that part-time employment does not impair academic performance of motivated students. To elucidate this matter we attempted to estimate the prevalence and nature of moonlighting in later years of medical school and compare academic achievements of working versus non-working students.

Methods

Anonymous questionnaires regarding demographics, academic achievements and part-time employment of all types were sent to medical students enrolled in the Moscow State University of Medicine and Dentistry Medical Faculty during the 2014–2015 school year. Academic success was estimated with an Academic Achievements Index that included two scales assessing academic performance and additional research activities, with a range of 3 to10 points. Students with part-time work (Group A) were compared to non-working students group (Group B) using t-test for continuous and chi-square analysis for dichotomous outcomes.

Results

Questionnaires were sent to 492 students, 441 (89.6%) of whom responded. Of these 441, 205 (46.5%) reported part-time employment; the remaining 236 (53,5%) did not work. Both groups were similar in terms of gender, age and marital status. The Academic Achievements Index was almost identical in the two groups (4.83, part-time work, vs 4.67, no work, respectively, $p = 0.21$). Academic and research activities also did not differ. Most of those who worked part-time ($n = 139$, 67,8%), stated that their work did not interfere with their studies meanwhile only 95 (40.3%) of non-employed students believed that moonlighting was not detrimental to academic success ($p < 0.001$). Approximately half of non-employed students (46.4%) stated that they refrained from part-time work as it would impair their own academic performance.

Conclusions

Our data show that nearly half of medical students in this sample from Moscow State University of Medicine and Dentistry are working part-time. Students who ''moonlight'' have equivalent academic achievements to those who do not despite widespread beliefs to the contrary among the latter.

Key messages

- Part-time work does not appear to interfere with medical students' academic activities
- Non-working medical students often overestimate potential hazards of moonlighting thus refraining from activities that are potentially beneficial for themselves and for public health

Payment Systems for Hospital Specialists in 10 High-Income Countries

Wilm Quentin

Wilm Quentin[1,2], *Alexander Geissler*[1], *Reinhard Busse*[1,2]
[1]Technische Universität Berlin, Berlin, Germany
[2]The European Observatory on Health Systems and Policies, Brussels, Belgium
Contact: wilm.quentin@tu-berlin.de

Background

Payment mechanisms for specialists are important because the inherent financial incentives influence treatment decision of specialists – who control the vast majority of resources used in hospitals. This study aimed at comparing specialist payment systems in ten high-income countries based on a predefined framework in order to systematically describe different payment mechanisms and non-financial benefits.

Methods

Based on a scoping review, 10 high-income countries (Canada, England, France, Germany, Korea, Luxemburg, Sweden, Switzerland, The Netherlands, USA (Medicare)) with different payment systems (mainly fee-for-service (FFS), mainly salary, and combinations of both) were selected for analysis with a view to including countries with particularly sophisticated systems and/or countries with recent reform initiatives. A survey was designed to collect information from national experts on (1) main national payment mechanisms, (2) contractual relationships between hospitals and specialists, and (3) the different components that make up the total income of specialists.

Results

In England, Germany, Sweden, and Switzerland, almost all specialists (≥90%) are employed by hospitals and receive a salary, while specialists in the United States, Canada, and Luxembourg are mostly (≥70%) self-employed and paid on the basis of FFS. Payment mechanisms may differ across hospitals (e.g. public vs. private or teaching vs. non-teaching), across specialties (e.g. surgical versus medical specialties), or by setting (inpatient care vs. outpatient care). In Switzerland, the United States and Korea, base salaries are increasingly combined with FFS based bonuses. In the Netherlands, the scope of FFS payments was broadened with the introduction of DRG-based hospital payment.

Conclusions

Specialist payment systems differ greatly across and usually also within countries. Specialist payment could be optimized in several countries by taking into consideration experiences from other countries.

Key messages

- Specialist payment systems can combine different payment mechanisms in order to balance the intended and unintended incentives of fee-for-service payments or traditional salary systems
- Differences in payment systems across countries can motivate change by providing examples of alternative options for payment of specialists in hospitals

PARALLEL SESSION 7

Saturday 17 October 2015 9:00–10:30

7.A. Regular workshop: From global to local - trends in care for children and adolescents

Organised by: EUPHA Sections on Public Mental Health and Children and adolescent public health
Contact: lindert@brandeis.edu

Chairs: Jutta Lindert, Danielle Jansen

Abuse and neglect in children and young people are associated with risks of 1) being institutionalized and 2) onset of psychopathologies in children and adolescents. Children institutional care models vary within and between countries. The advantages and disadvantages of institutional care on mental health of children remains underresearched and reliable data are needed. Without reliable data on youth mental health living in and outside of institutions it will be impossible to further improve care for children living in and outside of institutions.

The aim of the workshop is to bring together different perspectives on care models for children and young people with psychosocial needs and contribute to better understanding of determinants and impacts of care approaches on their mental health.

1. The first presentation will provide a sociological perspective on treatment of youngsters with psychosocial problems in a community-based setting.
2. The second presentation will deliver study results on Flexible Assertive Treatment (FACT) organizational model of care for children and adolescents in the Netherlands.
3. The third presentation will give an overview of children institutionalization context and long term trajectories in Lithuania.

Presentations will be followed by discussions between speakers and the audience to have a broader perspective on children and adolescent care models and mental health as well as stimulate networking between participants of the workshop.

Key messages

- Care abuse and neglect are critical risk factors for children and adolescents of being institutionalized and developing psychopathologies
- Management of at risk children either in institutions or in foster families varies between countries. Long term trajectories of institutionalized children in early life are largely unknown

Pros of treating youngsters with psychosocial problems in a community-based setting: a sociological perspective

Danielle Jansen

DEMC Jansen
Department of Health Sciences, social medicine, University Medical Center Groningen, The Netherlands
Contact: d.e.m.c.jansen@umcg.nl

Already since the beginning of the ‘60 in the previous century, the famous sociologist Erving Goffman presented his opinion against mental hospitalization. Goffman (1961) states that no matter the type of institution, the person under it experiences a complete demoralization. The person enters the institution with an identity that has been created over time by their life circumstances and experiences, but are stripped of that identity and forced to take up another one in the institution. Also psychiatrist and academic Thomas Szasz (1961) saw involuntary mental hospitalization as ‘a crime against humanity’ because it deprives people from controlling their own lives, which is a violation of human rights.

In this presentation, the views of Goffman and Szasz against hospitalization will be linked to the current treatment of children and adolescents with mental health problems: in what ways is a community-based treatment preferred above institutional-based treatment and what evidence is this based on?

FACT youth: the better alternative for inpatient psychiatric care?

Arien Storm

N Frieswijk
Accare, The Netherlands
Contact: a.storm@accare.nl

In the Netherlands, the number of psychiatric inpatient beds for children and adolescents has been drastically reduced in the last decade. Nowadays, the starting point of psychiatric care is that young people should remain in their own homes and return to independent functioning as soon as possible. However, studies have shown that a small number remain dependent on long-term psychiatric care for their social and emotional development. These children and adolescents mostly have complex (psychiatric) problems in multiple life domains, i.e. parents with psychiatric illnesses, financial problems, housing issues, dependence on addictive substances, etc. To prevent future psychiatric admission and provide these clients with sufficient care, we adopted the (F)ACT-approach and adapted it to the needs of children and adolescents.

Flexible Assertive Treatment (FACT) is an organizational model of care which combines the flexibility of ambulant care with the intensive approach of inpatient treatment. A first study with pre-post design shows that 7–10 percent of clients show improved functioning following FACT youth treatment. Awaiting further evidence, FACT youth seems to be a promising organizational model for children and adolescents in need of long-term (psychiatric) care.

Children institutionalization and mental health outcomes: from policy to practice

Marija Veniute

M Veniute[1], *J Lindert*[2,3]
[1]Vilnius University, Faculty of Medicine, Institute of Public Health, Lithuania
[2]University of Emden, Germany
[3]Brandeis University, Waltham, United States
Contact: marija.veniute@mf.vu.lt

Background

Around 8 million children are living in institutional or in foster care worldwide, 42% of them are living in Central and Eastern Europe (e.g. in Lithuania). Lithuania struggles to change its childcare system from predominantly based on large-institution care to one that has a continuum of services and is family-focused. In 2012, in Lithuania 10,813 children were placed in alternative care settings, of them 38.1% - in institutions. Studies have shown that children who were removed from their homes experience not only significant trauma but also were more likely than other children to experience negative mental health and wellbeing outcomes as adults. The paper aims to 1) review data and context of the removal decision, understanding the influence of the individual and organizational factors, 2) identify clusters of family problems, leading to placements in institutions in Lithuania and 3) identify possibilities to evaluate long-term trajectories following early child welfare involvement and the association of these trajectories with subsequent physical and behavioural well-being in Lithuania.

Methods

Review of secondary and meta data from state, non-state and international sources.

Results

Most children who are placed in institutional care were under 10 years old (52%), 33% of those are under 3 years old. The major reasons for the placement of children in alternative care were improper care, neglect, use of physical or psychological violence (72%), or parents' temporary inability to take care of them (14%). However, the decision to remove children from their families is particularly complex; yet surprisingly little is understood about this decision-making process.

Conclusion

Lithuania is still in transition from institutional towards family-based care for children. Instruments to evaluate accuracy of placement are highly needed. Furthermore, a state strategy on child-centred approaches and prevention of separation is highly needed.

7.B. Regular workshop: Supporting the EU level response to serious cross border chemical incidents

Organised by: The European Chemical Emergency Network (ECHEMNET)
Contact: charlotte.hague@phe.gov.uk

Chairs: Raquel Duarte-Davidson, Rob Orford

Chemical incidents can impact on society and public health in a number of ways; these effects can be compounded if the incident involves more than one country. Improvements in preparing and responding to such events at the European and Member State level are required. This has been recognised by the recent publication of the EU Decision on serious cross border threats to health (1082/EU/2013).

The EU co-funded European Chemical Emergency Network project (ECHEMNET) aims to support the European Commission and EU Member States in the implementation of the EU Decision on serious cross border threats to health and the WHO International Health Regulations for chemicals. This is being achieved by: developing and testing a rapid risk assessment methodology for emerging chemical threats; improving intersectoral preparedness; developing a network of public health risk assessors to aid with the acute phase response to incidents and; supporting the roll-out of the Rapid Alerting System for Chemical Health Threats (RASCHEM) risk assessment platform by engaging end-users and providing guidance documents for risk assessors.

Engagement with future end users and stakeholders is vital to ensure that the mechanisms developed are robust and fit for purpose. This interactive workshop will enable attendees to become familiar with the project outputs and understand how they can participate. In addition, the workshop will enable delegates to comment on and discuss the mechanisms presented, thereby further informing project recommendations.

The workshop will consist of a plenary session to introduce the background, concepts, aims, outputs and proposed mechanisms. An interactive discussion session will then follow. Electronic voting devices will be used to facilitate structured discussion, comment and evaluation of the information provided in the workshop. Delegates will be provided with supporting information.

Following the workshop, delegates will know how to join RASCHEM, join the network of expert risk assessors, engage with the project and understand how ECHEMNET supports implementation of the EU Decision on serious cross border threats to health for chemicals.

Key messages

- Requirements for an efficient and coherent EU-level response to serious cross border chemical health threats at the EU and Member State level are addressed by the ECHEMNET and ASHTIII projects.
- Tools and mechanisms to improve reporting and alerting, rapid risk assessment and inter-sectoral response to serious cross border chemical events have been developed

The European Chemical Emergency Network: responding to cross border chemical incidents

Charlotte Hague

C Hague[1], R Orford[1], A Schaper[2], L Hall[3], A Goransson Nyberg[4], P Leffler[4], E Wigenstam[4], A Plamboeck[4], J Trnka[4], M del Carmen G Cazalilla[5], J García-Donas[5], R Duarte-Davidson[1]
[1]Centre for Radiation, Chemical and Environmental Hazards, Public Health England, Chilton, UK
[2]GIZ-Nord Poisons Centre, University Medical Center Göttingen Georg August Universität, Göttingen, Germany
[3]National Institute for Public Health and the Environment (RIVM), Centre for Environmental Safety and Security, Bilthoven, Netherlands
[4]Swedish Defence Research Agency (FOI), CBRN Defence and Security, Umeå, Sweden
[5]Empresa Pública de Emergencias Sanitarias (EPES), Healthcare Delivery Management Dept, Malaga, Spain
Contact: Charlotte.Hague@phe.gov.uk

The European Chemical Emergency Network project (ECHEMNET) is a collaborative research and development project co-funded under the second EU Health Programme. The principal aim of ECHEMNET is to support the European Commission and EU Member States to alert and respond to cross-border chemical incidents in order to reduce their impact on public health. It therefore also supports the implementation of the EU Decision on serious cross border threats to health (1082/EU/2013) and the WHO International Health Regulations.

ECHEMNET has developed a chemical focused rapid risk assessment mechanism for use by the European commission and EU Member States to ensure a coordinated response to serious cross-border events. A network of public health risk assessors to aid with the acute phase response to incidents is being developed and the project is supporting the roll-out of the Rapid Alerting System for Chemical Health Threats (RASCHEM) risk assessment platform. ECHEMNET will also respond in 'pilot mode' to emerging EU chemical threats during the lifespan of the project.

The network and guidance documents developed in the ECHEMNET project will contribute to an efficient and coherent EU-level response to potentially devastating cross-border chemical events. The project will try to enable incorporation of the experience of, and best practices adopted by, one Member State following an incident to benefit other Member States and ensure that the response to such incidents is complementary to that of other sectors and actors (e.g. the EU Civil Protection Mechanism; CPM; World Health Organization, WHO; and the European Centre for Disease Control, ECDC).

Detecting, Alerting and Monitoring Emerging chemical health threats: ASHTIII

Rob Orford

R Orford[1], C Hague[1], R Duarte-Davidson[1], L Settimi[2], F Davanzo[3], H Desel[4], D Pelclova[5], G Dragelyte[6], M Mathieu-Nolf[7], G Jackson[8], R Adams[8]
[1]Centre for Radiation, Chemical and Environmental Hazards, Public Health England
[2]National Centre for Epidemiology, Surveillance and Health Promotion, National Institute of Health, Rome, Italy
[3]National Poison Control Center in Milan, Italy
[4]GIZ-Nord Poisons Centre; University Medical Center Göttingen Georg August Universität, Germany
[5]General University Hospital, Toxicological Information Centre, Czech Republic
[6]Health Emergency Situations Centre, Poison Control and Information Bureau, Lithuania
[7]CHRU de Lille, Centre Antipoison, France
[8]National Poisons Information Service (Edinburgh), Scotland
Contact: Rob.Orford@phe.gov.uk

The Alerting and Reporting System for Chemical Health Threats, Phase III (ASHTIII) project was a collaborative research and development project co-funded under the EU Health Programme. During ASHTIII, tools and methodologies to support the European response to emerging chemical events were developed. This includes: the provision of technical and medical advice relating to chemicals, chemical injuries and public health; developing an event based surveillance scheme; development and moderation of the Rapid Alerting System for Chemical Health Threats (RASCHEM) platform; development and assessment of methods to exchange and compare exposures data from European Poison Control Centres.

RASCHEM allows health risk assessors from different countries to alert each other, assess the risks of new chemical events and aid information sharing. It became operational in June 2014 and activities to support its roll out (e.g. guidance and exercising) to all Member States are still on-going in the European Chemical Emergency Network (ECHEMNET) project. An event-based surveillance methodology to help identify events to be posted to RASCHEM, or notified to the Commission or WHO under the International Health Regulations (2005) was developed. The event based surveillance, which has run since July 2014, has detected 8 events in Europe that have been posted to RASCHEM; a further 15 events outside Europe have been notified to WHO.

Developing a network of public health risk assessors for acute chemical incidents

Lisbeth Hall

L Hall[1], J Roelofs[1], P Morgenstern[1], R Duarte-Davidson[2], R Orford[2], C Hague[2], A Schaper[3], A Goransson Nyberg[4], P Leffler[4], E Wigenstam[4], A Plamboeck[4], J Trnka[4], M del Carmen García Cazalilla[5], J García-Donas[5]
[1]National Institute for Public Health and the Environment (RIVM), Centre for Environmental Safety and Security, Netherlands
[2]Centre for Radiation, Chemical and Environmental Hazards, Public Health England, Chilton, UK
[3]GIZ-Nord Poisons Centre, University Medical Center Göttingen Georg August Universität, Göttingen, Germany
[4]Swedish Defence Research Agency (FOI), CBRN Defence and Security, Umeå, Sweden
[5]Empresa Pública de Emergencias Sanitarias (EPES), Healthcare Delivery Management Dept, Malaga, Spain
Contact: lisbeth.hall@rivm.nl

An EU-level pilot network of expert public health risk assessors is being developed to provide rapid, dynamic, authoritative and independent risk assessment of serious cross-border chemical health threats. These risk assessments will be performed at the request of DG Santé to aid EU-level coordination of public health measures and to support affected countries. A cross-border chemical health threat can cover a wide range of incidents, such as industrial accidents or contaminated foodstuff, which require specific skills and expertise to assess the risks. In order to ascertain the skills and expertise of experts recruited to the network, a skills framework was developed encompassing a range of skills and expert knowledge in the field of hazard, exposure and public health risk assessment, such as expertise in agent specific toxicity or in toxidromes. Network members complete the skills framework as part of a questionnaire which also contains questions to elucidate the level and range of their experience. The details thus gathered are compiled in a database from which the relevant experts can be selected and alerted in the event their expertise is required. So far, the network consists of experts from organisations such as Public Health Institutes, Public Health Ministries and Poisons Centres within the EU and neighbouring countries.

The alerting and responding mechanisms and procedures of the network are currently being developed and the network will receive training and will participate in exercises to test the mechanisms and hone the procedures. In addition, the network plays a role in ensuring that guidance and tools for a rapid risk assessment are fit for purpose.

Those attending the workshop will be invited to comment on the skills framework and the roles, tasks, mechanisms and procedures of the network. Those with relevant skills will be encouraged to join the network.

A new methodology to support data reporting from EU member States on pesticide poisonous exposures

Laura Settimi

Laura Settimi[1], Rob Orford[2], Franca Davanzo[3], Charlotte Hague[2], Herbert Desel[4], Daniela Pelclova[5], Gabija Dragelyte[6], Monique Mathieu-Nolf[7], Gill Jackson[8], Richard Adams[8], Raquel Duarte-Davidson[2]
[1]National Centre for Epidemiology, Surveillance and Health Promotion, National Institute of Health, Rome, Italy
[2]Centre for Radiation, Chemical and Environmental Hazards, Public Health England;
[3]National Poison Control Center in Milan, Italy
[4]GIZ-Nord Poisons Centre; University Medical Center Göttingen Georg August Universität, Germany
[5]General University Hospital, Toxicological Information Centre, Czech Republic
[6]Health Emergency Situations Centre, Poison Control and Information Bureau, Lithuania;
[7]CHRU de Lille, Centre Antipoison, France;
[8]National Poisons Information Service (Edinburgh), Scotland
Contact: laura.settimi@iss.it

Pesticides, i.e. plant protection and biocidal agents, are readily available and widely used hazardous chemicals. Pesticide misuse can cause mass exposure, environmental pollution, and food contamination. Regulation 2009/1185/EU on sustainable use of pesticides and Regulation 2012/528/EU on placing on the market of biocidal products require reporting from European Member States (MSs) on pesticide poisonous exposures. However, standard rules for data collection and reporting have not yet been provided. Considering these aspects, a workpackage was developed within the EU co-funded project 'Alerting Reporting Surveillance System for Chemical Health Threats Phase III' (ASHTIII) to gather comparable data on pesticide-related poisonings and to support rapid exchange of information on cross border health threats possibly due to pesticide exposure/contamination.

Legislation on pesticides was used as a basis to built-up a pesticide classification and coding system. The system was tested on a sub-set of data collected by Poison Control Centers in Germany, France, Czech Republic, Italy, Lithuania, and the UK. The resulting pesticide system is two dimensional: The first dimension identifies the main category of use (one digit), i.e. plant protection/biocide, and the secondary category of use (two digits), e.g. Insecticides/acaricides, Rodenticides; the second dimension identifies the agent chemical class e.g. Coumarines, Pyrethrins/Pyrethroids (three digits), and the agent itself (CAS number). Applying the system to different data-bases allowed a preliminary comparison of EU data and highlighted the need for European common rules for data collection and reporting.

The criteria adopted to standardize information on pesticide exposures from different MSs can be easily applied provided that a minimum set of data is collected. The methodology can be further developed and applied to other categories of hazardous exposures.

7.C. Regular workshop: Sexual and gender minority health: a European perspective

Organised by: EUPHA section initiative on Sexual and gender minority health
Contact: richard.branstrom@ki.se

Chairs: Richard Bränström, Arjan van der Star

Reduction of health disparities is a fundamental goal of public health research and practice. Today many governmental public health agencies call for policy and intervention programs addressing specific needs of lesbian, gay, bisexual, and transgender (LGBT) individuals, and call for increased funding of research examining health disparities based on sexual orientation and gender identity as well as its determinants. Still, the public health consequences of discrimination towards LGBT individuals have only recently been a topic of investigation and current knowledge in the area is limited. Recent findings points to a much higher prevalence of certain health conditions among LGBT people that calls for the urgent attention of public health researchers and professionals.

This workshop will give examples of studies of health differences based on sexual orientation and gender identity. It will give some basic understanding of methodological challenges and opportunities, as well as, present a theoretical framework for how to further explore the mechanisms behind sexual minority health disparities and minority stress.

The health differences based on sexual orientation and gender identity that have been identified have often been explained by the concept of minority stress. In many ways, LGBT individuals share several risk factors for stigmatizing experiences with other stigmatized groups such as e.g. certain ethnic minorities. However, many of the stressors influencing health among LGBT individuals are unique. According to the minority stress model, physical and mental health is influenced through four main processes: exposure to negative stressful events such as discrimination; the stress of expecting negative events to occur; stress related to concealment of sexual orientation and gender identity; and internalization of societal negative attitudes. According to this model, stress-ameliorating factors such as coping and social support can potentially reduce the impact of these minority stressors.

The situation for LGBT individuals varies greatly across Europe. The level of acceptance for minority sexual orientations differs greatly by country, and in many countries, LGBT people are also subject to legal discrimination concerning basic civil rights, e.g. regarding recognition of same-sex unions. The wide differences in LGBT acceptance and differences in institutional discrimination make cross-European studies particularly suitable for the exploration of the consequences of structural discrimination on health.

More research is needed in this field, and increased knowledge regarding factors influencing health outcomes among LGB people could facilitate the development of targeted psychosocial interventions to improve the health of LGB individuals: a clear public health goal.

Key messages

- More knowledge of factors influencing health outcomes among LGBT people could facilitate the development of targeted interventions to improve the health of LGBT individuals: a clear public health goal
- The situation for LGBT individuals varies greatly across Europe making cross-European studies particularly suitable for the exploration of the consequences of structural discrimination on health

Homophobia: It's Place on the Public Health Agenda

Ian Rivers

I Rivers
Brunel University London, UK
Contact: ian.Rivers@brunel.ac.uk

As part of its strategic framework document promoting the mental health and well-being of gay and bisexual men, Public Health England have set a target of reducing homophobic victimization in schools by 50% in 2020.

While homophobia may not been immediately associated with public health initiatives across the US and UK, the immediate and long-term effects of sexual orientation victimisation upon the lesbian, gay, bisexual and transgender population are well documented in over 30 years of cross-sectional, epidemiological, longitudinal research.

This presentation offers an overview of the research that has been undertaken over the last 30 years globally and will explore the challenges and key messages contained within that research. Key recent studies are highlighted suggesting that experiences of homophobia in childhood and adolescence continues to have significant implications in terms of long-term mental health and, more particularly, self-harm and suicide ideation.

Finally, this presentation considers the legacy of earlier years of intolerance and the implications this has for an ageing lesbian, gay, bisexual, and transgender population.

Trans Depathologization Perspectives and Public Health Frameworks: Intersections and Alliances

Amets Suess

A Suess
Andalusian School of Public Health, Granada, Spain
CIBER-ESP, Centre for Biomedical Network Research - Epidemiology and Public Health, Spain
Institute for Bio-Health Research of Granada (ibs.Granada), Spain
Contact: amets.suess.easp@juntadeandalucia.es

Background

In the scope of the periodical revision processes of the diagnostic manuals DSM and ICD, a broad discussion regarding trans-specific diagnostic categories and trans health care models can be observed from academic, clinical and activist perspectives, including emerging trans depathologization perspectives.

Methods

Systematic literature review of scientific articles related to trans health, identified in the databases PubMed, ScienceDirect and Scielo, completed by a narrative literature review of related publications not listed in the databases, reports, guidelines, strategic documents, declarations of professional associations and civil society documents. Sociological discourse analysis and mapping.

Results

Within the discursive field related to trans health care and the DSM and ICD revision processes, a broad range of academic, clinical and activist discourses can be observed. Trans depathologization perspectives can be identified as emerging discourses, contributing to a paradigm shift from a conceptualization of gender transition as a mental disorder towards its recognition as a human right. The reviewed trans depathologization discourses propose a modification of the diagnostic classification of gender transition, a change in the trans health care model, as well as the introduction of gender recognition legislation without medical requirements. These perspectives show multiple intersections with broader public health frameworks, among them a critical revision of human rights violations in mental health, the use of a social determinants of health framework, reflections on access to health care, a review of informed consent approaches and proposals related to citizen participation in health care.

Conclusions

The multiple relationships between trans depathologization perspectives and public health frameworks opens the opportunity for promoting alliances in the process of working for trans health and trans rights.

Sexual orientation based differences in mental health morbidity: Age effects in a population-based longitudinal study in Sweden

Richard Bränström

R Bränström[1], *JE Pachankis*[2], *ML Hatzenhuehler*[3]
[1]Department of Clinical Neuroscience, Karolinska Institute, Sweden
[2]Yale School of Public Health, Yale University, USA
[3]Mailman School of Public Health, Columbia University, USA
Contact: richard.branstrom@ki.se

Background

Recent studies have identified substantial mental health disparities between lesbian, gay, and bisexual (LGB) individuals compared to heterosexuals. However, possible variation in sexual orientation mental health disparities across the life course remains largely unexplored. To examine disparities in mental health morbidity between LGB and heterosexual individuals in a general population sample in Sweden, and to explore potential age differences in these disparities.

Methods

We used morbidity data from the Stockholm Public Health cohort, a representative general population-based study in Stockholm, Sweden. The cohort consists of over 75 000 individuals (aged 18 years and older) followed up with regular self-report questionnaires as well as registry-based archival morbidity data.

Results

Overall, LGB individuals were more likely to have received treatment for mental health diagnoses and to have used anti-depressant medication compared to heterosexuals. The largest disparities were found for mood disorders among men (odds ratio [OR] for sexual orientation disparity: 3.66, 95% CI: 1.98-6.78), and substance-related disorders among women (OR for sexual orientation disparity: 4.45, 95% CI: 2.17-9.13). Disparities in treatment for mental diagnoses were largest among adolescents and young adults, and decreased with increasing age; no sexual orientation disparities were found in the oldest age group (65 years and older). However, use of anti-depressants was consistently more than twice as common among gay and bisexual men, from early adulthood (30-44 years) and older, as compared to heterosexual men.

Conclusion

Age emerged as an important effect modifier of mental health disparities based on sexual orientation. These results partially support a developmental model of minority stress and mental health among LGB individuals.

Acceptance of sexual minorities and the mediating role of social capital on health and well-being among members of same-sex and opposite-sex couples across Europe

Arjan van der Star

A van der Star[1], *R Bränström*[2]
[1]Erasmus University, Rotterdam, the Netherlands
[2]Department of Clinical Neuroscience, Karolinska Institute, Sweden
Contact: arjanvanderstar@live.nl

Background

Awareness of health disparities based on sexual orientation has increased during the past decades. Public health policy and research have begun to address the issues of lesbian, gay, bisexual and transgender (LGBT) populations, and many official public health agencies call for program addressing the specific needs of LGBT individuals. However, population level of acceptance of LGBT individuals varies greatly in different countries in Europe. In the current study, differences in self-rated health and subjective well-being between individuals living in same-sex or in opposite-sex couples was examined and how it was related to discrimination and country level acceptance of sexual minorities. Further, the mediating role of social capital on these associations was examined.

Methods

From the 2010 European Social Survey (n = 50,781), 315 individuals living with a same-sex partner were matched and compared to an equal number of individuals living in opposite-sex couples. Structural equation modelling analyses were performed to estimate path coefficients, mediations, and interactions.

Results

As distinct from sexual orientation, sexuality-based discrimination had a significantly negative effect on self-related health and subjective well-being. Acceptance of sexual minorities was significantly related to better self-rated health and subjective well-being among all individuals, and this association was partially mediated by individual social capital. No differences were found between individuals living in same-sex and opposite-sex couples.

Conclusions

Discrimination based on sexual orientation was found to be associated with health and well-being of individuals living in same-sex couples. The findings from this study suggest that acceptance of sexual minorities and social capital, at both individual and societal level, is a potential predictor of these outcomes.

Transgender health in Sweden - results from a self-selected web survey on health and health determinants

Charlotte Deogan

G Zeluf[1], *A Thorson*[1], *C Deogan*[2], *L Mannheimer*[2]
[1]Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden
[2]The Public Health Agency of Sweden, Stockholm, Sweden
Contact: charlotte.deogan@folkhalsomyndigheten.se

Background

A strategy to secure equal rights and opportunities regardless of sexual orientation, gender identity and gender expression was launched by the Swedish government in 2014 and involves long-term efforts in various societal focus areas performed by strategic government agencies. The Public Health Agency of Sweden was assigned to monitor health and health determinants among lesbian, gay, bisexual, and transgender persons (LGBT) and provide knowledge support regarding effective methods promoting LGBT health. This presentation includes research findings from a study on transgender health in Sweden.

Methods

The aim of the study was to explore health and health determinants among transgender individuals. Data was collected by a self-selected web survey including questions on health and health determinants. Respondents were recruited mainly by social networks and online community websites from September to November in 2014. The analysis was based on 800 respondents, which makes this the largest survey among transgender persons conducted in Sweden to date. The study respondents represented various gender identities, transgender experiences and sexual identities.

Results

Preliminary results show that discrimination, harassment and low trust in public institutions were highly prevalent in the group as compared to the general population. Further, 19% reported ever having been subjected to violence because of their transgender identity and 30% reported having been forced to have sex against their own will. Regarding mental health, 36% of respondents reported having seriously considered committing suicide and 5% having attempted suicide, during the past 12 months. Only one person reported being HIV-positive in the sample, but 50% of the respondents had never been tested for HIV.

Conclusions
According to our results, transgender individuals in Sweden report substantially elevated levels of discrimination and violence, suicide thoughts, and suicide attempts.

7.D. Regular workshop: Systematic reviews in Public Health fields: challenges and how to bridge with policy

Organised by: EUPHA Sections on Chronic Diseases; Public Mental Health; Public Health Epidemiology; Social Security, Work and Health
Contact: giuseppe.latorre@uniroma1.it

Chair: Giuseppe La Torre

The use of systematic reviews and meta-analyses has been increasing in the last decade, and this approach is considered the most important for producing evidence in science. Systematic reviews differ according to the topic under investigation and a variety of guidelines and approaches exist such as

At the same time, the bridge between the production of evidence (science) and decision making process (politics) and healthcare and/or public health practice requires extensive use of systematic reviews and meta-analyses.

So, the workshop aims to present four different aspects on this topic as a bases for discussion:

The goal is of this workshop is to contribute to better understand the use, challenges and problems of systematic and narrative reviews in Public Health. The following four abstract will be presented:

- How to assess the methodological quality of Systematic and narrative Reviews in a Public Health perspective (Public Health Epidemiology)
- The use of systematic review in the field of sickness absence (Social Security, Work and Health)
- The challenges of performing Systematic Reviews in mental health (Public Mental Health)
- The use of Systematic Reviews for political challenges (Chronic Diseases)

Key messages

- The workshop deals withthe methods for assessing systematically the scientific literature on mental and neurological disorders
- to discuss future perspective of the interaction between research and policy making

Problems in assessing the methodological quality of systematic and narrative reviews: the case of tobacco smoking and Multiple Sclerosis

Insa Backhous

A Mannocci[1], *I Backhous*[2], *G La Torre*[1]
[1] Department of Public Health and Infectious Diseases, Sapienza University of Rome, Italy
[2] CAPHRI School for Public Health and Primary Care, Maastricht University, The Netherlands
Contact: i.backhaus@student.maastrichtuniversity.nl

Background
The aim of this study was to review all systematic reviews and meta-analyses of smoking as a risk factor for Multiple Sclerosis (MS). In fact, the methodological quality of these reviews is far from being robust, since many of them are not systematic.

Methods
PubMed and Scopus were searched for systematic and narrative reviews. The keywords used: ‘multiple sclerosis’, ‘smoking’, ‘tobacco’, ‘nicotine’. Two authors independently screened the titles, abstracts and full texts of the retrieved literature to assess their eligibility, and assessed the methodological quality. Meta-analyses were judged using the AMSTAR. On the other hand, narrative reviews were judged with a newly developed tool called INSA (International Narrative Systematic Assessment tool).

Results
1309 articles were retrieved, 419 articles from PubMed and 889 articles from Scopus. Fourteen narrative reviews and three meta-analyses were relevant for this study. Only three narrative reviews particularly dealt with the association between smoking and MS. The other focused on general environmental risk factors. The meta-analyses reported small and medium effect sizes for smoking being a risk factor for MS. Smoking was associated with increased risk for ever versus never smokers and current versus no-smoker. Most reviews concluded, however, that while the evidence shows that smoking is a risk factors for MS, further research is needed to understand the mechanism behind this association.

Conclusion
This comprehensive review of reviews identifies smoking as a risk factor for MS susceptibility. However, in conclusion, in order to achieve a higher level of understanding about the mechanisms of smoking and MS more research is needed. Finally this review may serve as tool not only for clinicians and patients but also for policy makers in order to adopt or implement policies and prevention strategies.

Problems encountered in systematic reviews regarding sickness absence/insurance medicine

Kristina Alexanderson

K Alexanderson
Division of Insurance Medicine, Karolinska Institutet, Stockholm, Sweden
Contact: Kristina.alexanderson@ki.se

Different types of systematic reviews are conducted in the area of sickness absence. Examples are risk factors for sickness absence or disability pension; factors affecting return to work; consequences of being sickness absent or on disability pension, or about sickness certification practises. Such reviews are conducted for sickness absence in general or for specific diagnoses.

Although sickness absence and disability pension affect many people and involves substantial costs, there so far are few studies and very limited evidence.

Challenges when conducting systematic reviews in this area includes that type of measures vary substantially between studies (presently at least 60 different ones can be found in the literature regarding sick leave and many others regarding return to work) hampering comparisons. Also, type of study groups varies much as well as social security systems. Basic factors that influence levels if sick leave and disability pension, such as employment frequencies in different ages and in women and men, vary much between countries and over time, however, seldom presented. RCTs are few and often not possible to conduct, while observational studies are more frequent.

Several of these challenges can be found in other public health areas.
In this presentation, different aspects of systematic reviews and meta analyses in this research area as well as how they so far have been handled will be presented as bases for discussion.

Child sexual and physical maltreatment and depression and anxiety in later life - a systematic review and meta-analysis?

Jutta Lindert

J Lindert[1,2]*, OS von Ehrenstein*[3]*, R Grashow*[4]*, G Gal*[5]*, MG Weisskopf*[6]
[1]University of Emden, Emden, Germany
[2]Brandeis Univerrsity, Wlatham, USA
[3]Department of Environmental Health, Harvard School of Public Health, Boston, USA
[4]Fielding School of Public Health, University of California Los Angeles, Los Angeles, USA
[5]School of Behavioral Sciences, The Academic College Tel Aviv-Yaffo, Tel Aviv, Israel
[6]Department of Epidemiology, Harvard School of Public Health, Boston, USA
Contact: mail@jlindert.de

Background

Measurement of exposure and outcomes and meta-analyses methods are a challenge in Public Mental Health reviews. We aim to present an example of a systematic review in the field of Public Mental Health that will illustrate risks and methodological challenges.

Methods

We conducted a systematic literature search for studies from January 2000 to March 2012 describing the association between child and adolescent physical or sexual abuse and depression or anxiety according to the 'Meta-analysis of Observational Studies in Epidemiology Guidelines' in the following databases: PubMed/MEDLINE, EMBASE, and PsycINFO using controlled terms. We applied the following inclusion criteria: original data; at least 100 participants from the general community; quantitative categorical assessment of child abuse; depression and anxiety assessed with validated scales or clinical diagnoses after age 16. We calculated combined ORs and 95% CI using random effects models. Heterogeneity of effects was assessed using the Cochrane Q test and quantified using the I2 test. Potential sources of heterogeneity were investigated by running a random-effects meta-regression.

Results

The inclusion criteria were met by 19 studies with 115, 579 study participants. 14 studies assessed depression, 13 anxiety and seven distress. Conclusion: Our analyses suggests that 1.) exposure and outcome measures in original studies are potential sources of misclassification bias in systematic reviews; 2.) sensitivity and meta-regression analyses maybe potential useful methods for analyzing data. Yet, further developments of methods are needed in Public Mental Health to minimize potential bias to provide sound evidence and inform policy makers and politicians with robust data.

Systematic Reviews: What have they got to offer evidence based policy and practice?

Iveta Nagyova

I Nagyova
PJ Safarik University, Department of Social and Behavioural Medicine, Kosice, Slovak Republic
EUPHA section on Chronic Diseases
Contact: iveta.nagyova@upjs.sk

There is an increasing effort in translating research outcomes into policy decisions in a wide range of policy areas. Producers of systematic reviews use different methods to make their findings more accessible to decision-makers. These include plain language summaries, structured critical abstracts, overviews of reviews on a particular topic, and briefings that combine systematic reviews with other evidence sources. This presentation will contribute to the debate on extending the use of systematic reviews in public health and healthcare policy areas. It will examine the ways in which systematic review presents a distinctive approach to synthesising research. It will discuss the barriers to knowledge translations and challenges faced by researchers who use systematic review outside clinical medicine. It will also address the issues of effectiveness of knowledge translation strategies focusing on policy makers and senior health service manager as well as the wider impact of systematic reviewing on the quality of primary research together with the tools and training resources available to support this activity.

7.E. Regular workshop: Corporate portrayals and perceptions in public health debates

Organised by: MRC/CSO Social and Public Health Sciences Unit, University of Glasgow, UK
Contact: heide.weishaar@glasgow.ac.uk

Chair: Oliver Razum

The detrimental impact of commercial interests on public health has long been recognised, leading to many non-communicable diseases (NCDs) being characterised as 'industrial epidemics', wholly or partially driven by commercial forces. Industries whose products are associated with NCD risk factors strive to maintain positive public and political perceptions of their activities. While there are striking similarities in the marketing practices, lobbying and corporate social responsibility campaigns of different industry sectors whose products have known detrimental health impacts, public and political perceptions of different industries vary considerably. For example, negative perceptions of the tobacco industry have led to the increasing exclusion of industry representatives from tobacco control policy processes. However, other industry sectors, such as the alcohol and food industries, enjoy good public reputations and acceptance as legitimate policymaking partners. Systematic, comparative research on public and political portrayals and perceptions of industries whose products have known detrimental health impacts is limited, and the public and political distinctions between industries are not well understood. Critical comparative assessment is fundamental given the influence of portrayals and perceptions on political decision making. Drawing on research on the tobacco, alcohol, and processed food and soft drinks sector, the objective of this workshop is to compare and contrast portrayals and perceptions of corporations whose products impact on health and generate discussion about the implications of these varying perceptions for public health policy and practice.

The workshop will start with a presentation by Prof Nicholas Freudenberg, outlining the impact of corporations on public health. Subsequently, three academics (Prof Lori Dorfman, Dr Ben Hawkins, Dr Heide Weishaar) will investigate public and political perceptions of the tobacco, alcohol, and processed food and soft drinks industry. The presentations will be followed by a 30 minute discussion, facilitated by Prof Oliver Razum, on differences and similarities in public and political discourses, and potential implications for public health policy and practice. The workshop is anticipated to facilitate interdisciplinary debate and cross-sectoral learning and identify future areas of research concerning the perception of corporations in public health debates.

Key messages

- The workshop will compare and contrast the portrayal and perception of tobacco, alcohol, and processed food and soft drinks industries in public and political public health debates.
- The workshop will generate inter-disciplinary debate and identify future areas of research concerning the perception of corporations in public health debates.

The Influence of Corporate Business and Political Practices on NCD Risk

Nicholas Freudenberg

N Freudenberg
School of Public Health at the City University of New York, USA
Hunter College at the City University of New York, USA
Contact: nfreuden@hunter.cuny.edu

Background

WHO has identified four risk factors for many non-communicable diseases (NCDs): tobacco use, alcohol consumption, unhealthy diet and physical inactivity. While individual behavior influences these risks, growing evidence shows that corporate business and political practices have a powerful impact on these behaviors. Understanding the pathways by which the production, marketing, retail, lobbying, and public relations practices of tobacco, alcohol, food, automobile, housing construction, and entertainment corporations contribute to premature deaths and preventable illness from NCDs can help guide prevention strategies.

Methods

Through a critical selective review of interdisciplinary investigations of the impact of corporate practices on NCDs, this presentation compares the business and political practices that contribute to risk across business sectors and markets. It also reviews the responses to these practices by governments and civil society.

Results

Although the products produced by these industries vary, all aggressively market harmful products to vulnerable populations; seek to make unhealthy products ubiquitous; and consolidate in order to increase market power. Each practice has been associated with increased NCD risk. In addition, these industries mislead the public about the health consequences of their products and lobby to undermine health regulations that jeopardize profitability. Of interest, corporations and their allies engage in 'credibility engineering' to maintain their ability to advance their business and political goals. Based on the review of public and civil society responses to harmful corporate practices, a typology of interventions is suggested with an assessment of the strengths and weaknesses of these strategies.

Conclusions

The common business and political practices of the diverse industries that contribute to NCD risk suggests that public health officials can develop a common policy agenda to reduce this harm.

US news coverage of corporate actors in food and beverage policy debates

Lori Dorfman

L Dorfman, P Meija, L Nixon
Berkeley Media Studies Group, Public Health Institute, Berkeley, California, USA
Contact: dorfman@bmsg.org

Background

Eager to emulate public health success with tobacco control, advocates have launched local policy campaigns to improve food and beverage environments. However, the food and beverage industry has vociferously opposed many of these initiatives, including efforts to tax sugary beverages to help prevent nutrition-related diseases.

Methods

We conducted a series of ethnographic content analyses of national and local news coverage of five US soda tax campaigns and examined food industry portrayals connected to news about obesity prevention policy.

Results

In news coverage about obesity, companies claim they are good corporate citizens who are 'part of the solution' while industry associations and corporate-sponsored non-profit organizations vigorously attack regulation. In tax campaigns, industry spokespeople adapt their arguments to local circumstances. In Telluride, Colorado, industry spokespeople focused on the town's independent image and commitment to outdoor sports; in El Monte, California, they used the city's budget shortfall to question government competence; in Richmond, California, the industry's messages fuelled longstanding racial tensions; in San Francisco, the industry minimized health to focus on freedom and the rising cost of living in the city. Berkeley, which won the first local soda tax in the US, countered industry arguments by emphasizing 'Big Soda' and its outsized expenditures on the local ballot measure.

Conclusion: Food and beverage companies promulgate distinctly different messages than the industry associations that represent them. While companies claim to be partners in preventing obesity, industry associations aggressively oppose regulation. This distinction is evident in local campaigns such as those seeking excise taxes on sugary beverages. However, intrepid news reporting revealed that the industry spent an unprecedented amount of money opposing the tax which, at least in Berkeley, was overwhelmingly supported by voters.

Tensions and contradictions in policy discourses and media coverage of the alcohol industry

Benjamin Hawkins

B Hawkins
Faculty of Public Health and Policy, London School of Hygiene and Tropical Medicine, UK
Contact: ben.hawkins@lshtm.ac.uk

Background

Like big tobacco, alcohol industry actors employ a range of strategies to influence policy, including attempts to shape the key terms of policy debates. They highlight the economic importance of the industry and play down the extent of alcohol related harm. They suggest policy should focus on educating consumers to exercise personal control, seeking to position themselves as key stakeholders in the policy-making process, able to contribute to reductions in alcohol-related harm through self-regulatory regimes and wider corporate social responsibility (CSR) agendas. This presentation focuses on a case study on UK alcohol policy to understand tensions within industry framings of alcohol policy and wider policy debates.

Methods

Submissions to the Scottish Governments consultation were analysed alongside 35 semi-structured interviews with policy-makers, civil society and industry actors to establish industry policy positions. A media analysis was undertaken of UK national newspapers and trade publications to establish their representation in wider public discourse. Thematic coding was undertaken using Nvivo software.

Results

A tension between alcohol companies as profit-maximisers and social responsible entities is evident in discourse on the alcohol industry. On the one hand, reports emphasise alcohol companies' capacity for economic growth, by driving sales and exploiting new, emerging markets. On the other hand, companies' CSR activities and their responsible contribution to the societies in which they are active are recounted. The presentation examines the contradictions present in discourses on the alcohol industry.

Conclusions

The tension which exists between the profit motive and companies' CSR objectives mean that alcohol companies cannot be considered legitimate partners in health policy making, and should be marginalised within this process along similar lines to the tobacco industry.

Better the devil you (don't) know? A comparison of the tobacco and alcohol industry's perceived political legitimacy

Heide Weishaar

H Weishaar[1], K Smith[2]
[1]MRC/CSO Social and Public Health Sciences Unit, University of Glasgow, UK
[2]School of Social and Political Science, University of Edinburgh, UK
Contact: heide.weishaar@glasgow.ac.uk

Background

While recent research has drawn attention to the similarities between tobacco and alcohol industries' marketing, lobbying and corporate social responsibility campaigns, the two sectors are treated very differently in policy terms. The reasons for these differences are often unstated. In this paper, we aim to explore how researchers, campaigners and policy actors perceive the two different sectors and why the alcohol industry is often perceived more favourably.

Methods

We employed interview data to compare and contrast perceptions of the tobacco and alcohol industries among policy actors, researchers and advocates, and explore the rationales that interviewees in each group provided to justify variations in perceived political legitimacy.

Results

We critically assess how interviewees described their perceptions of the two industries, identify the most popular rationales put forward by interviewees to justify distinctions made between these sectors, and consider the implications for public health advocacy. Our data suggest public awareness of the tobacco industry's role in exacerbating the tobacco epidemic and international guidelines to protect tobacco control policy from commercial interests have both played a crucial role in restricting the tobacco industry's ability to engage in policy debates. In contrast, the alcohol industry still seems to enjoy a relatively positive political image, though interviewees often struggle to satisfactorily justify their more positive perception of the alcohol industry in public health terms.

Conclusions

Differences in perceived political legitimacy of the tobacco and alcohol industry seem to influence the feasibility of adopting effective public health advocacy strategies. We outline key factors that could inform future decisions around policy engagement with both tobacco and alcohol industry representatives.

7.F. Regular workshop: Quality health information systems in small European countries and regions

Organised by: Islands and Small States Institute - University of Malta WHO European Office for Investment for Health and Development, Venice, EUPHA Section on Public Health Monitoring and Reporting
Contact: natasha.muscat@gov.mt

Chairs: Francesco Zambon, Nicole Rosenkotter

Health information is a key building block in the development of health systems. The implementation of Health 2020 including the development of health systems performance assessment are key priorities over the medium term for health policy makers in Europe. High quality health information is a vital mechanism to assist policy makers in achieving their objectives. For small countries, the availability of valid, comparable health status and health system indicators is essential since progress must continuously be monitored against external benchmarks. Although all countries face issues in ensuring the sustainable development of accurate and valid health information systems, there is anecdotal evidence to suggest that small countries face specific issues such as challenges including; handling complex data requests from international organisations, lack of skilled human resource capacity, fluctuations and data instability due to small numbers, the need for a high precision, difficulties with denominator data, multilingualism, over surveying and ensuring data confidentiality due to ease of subject identification. On the other hand, small size can also confer certain advantages such as high levels of coverage at national level and an ideal situation for data to influence policy making due to the proximity of policy makers to the health information providers. The objective of this workshop is to present emerging evidence and good practice examples to stimulate the development of a research and cooperation agenda by bringing together researchers, practitioners and policy makers in order to discuss possible mechanisms for bridging the identified gaps and supporting public health practitioners in the field of health information. The conclusions from the workshop will be utilised to support capacity building in small European countries and can also be relevant for public health practitioners working at regional level in large countries.

Key messages

- Health information practitioners in small countries and working at regional level face specific challenges in developing and maintaining high quality information systems
- The proximity of data providers to policy makers in small countries and regions is an opportunity for evidence informed policy making

European Health Information Initiative: recent developments and relevance for Small Countries

Ivo Rakovac

I Rakovac, M Verschuuren, N Nadareishvili, C Stein
Division of Information, Evidence, Research and Innovation, WHO Regional Office for Europe
Contact: IRK@euro.who.int

Issue and the description of the problem

Delegates of Member States in the European Region of the WHO with populations < 1 million met in San Marino in 2014 during the First High-level Meeting of Small Countries (SC) with the purpose to advance collaboration, share information, experiences and plans towards Health 2020 implementation, which requires also reporting on an agreed set of indicators. SC have identified Health Information (HI) as a priority area of work due to limited human, financial and technical HI resources, same reporting requirements as for the larger countries, methodological challenges due to small sample size and issues of privacy and confidentiality. Joint work with WHO on HI was identified as one of the key priority areas.

Results

WHO/Europe has established the European Health Information Initiative (EHII), a joint initiative between governments, national institutions and WHO/Europe to work on all aspects of HI but in particular on strengthening HI systems in countries. EHII has six key areas: development of indicators for health and well-being, enhanced dissemination of HI, capacity building, strengthening of HI networks, support for HI strategy development and communication and advocacy.

Lessons

Joint initiatives substantially increase the capacity of individual countries to tackle HI issues. In this session, recent EHII developments and plans will be presented with particular focus on regional and sub-regional networks like EVIPNet and CARINFONET which support countries very specifically in their needs. Other important elements include capacity building measures like Autumn School for HI and Evidence for Policy as well as the development and sharing of HI methods and tools (e.g. the newly developed tool support tool to assess HI systems and develop and strengthen HI strategies). Benefits and pitfall of a potential HI initiative for SC will be discussed as well as possible joint activities elaborated together with the workshop participants.

Factors affecting data availability in the European region - does population size matter?

Natasha Azzopardi-Muscat

N Azzopardi-Muscat[1,2,3]*, SG Thijssen*[2]*, D Stoner*[3]*, N Calleja*[3]
[1]Islands and Small States Institute University of Malta, Msida, Malta
[2]Department of International Health CAPHRI School of Public Health and Primary Care, Faculty of Health, Medicine and Life Sciences, Maastricht University, The Netherlands
[3]Directorate for Health Information and Research Malta, Malta
Contact: natasha.azzopardi-muscat@um.edu.mt

Background

Timely data availability is important in the assessment of health systems. Data availability directly influences the results derived from benchmarking exercises and is also critical to measure progress made in implementing the objectives of Health 2020. Negative health trends associated with austerity also highlight the importance of data being made publicly available in a timely manner. The purpose of this study is to explore potential predictors influencing data availability for indicators in the WHO - European health for all database (HFA DB).

Methods

The HFA-DB was examined for the years 2010, 2011 and 2012 for all individual countries in the WHO European region. The presence or absence for each indicator every year was denoted in binary format (1-available, 0-not available). For each indicator a country was allocated 0,1,2 or 3 depending on availability in the years of interest. The potential predictor variables selected were GDP, EU membership and population size. For population size cut-off points were defined for small (less than 3 million), middle >3 million <30 million) and large countries (30 million and above). Multiple regression analysis was conducted.

Results

From a total of 613 indicators, 526 indicators were included for further analysis as no difference in data availability between countries resulted for 87 indicators. EU membership was a significant determinant of data availability for 64% of the indicators. GDP was significantly associated with data availability for 16.5% of indicators. Population size was the least important and was only a significant predictor of data availability for 9.7% of indicators.

Conclusions

Important differences in data availability exist between European countries. EU legal obligations and GDP appear to be important in influencing data availability. Population size does not appear to determine data availability with the exception of rare diseases or events.

A web-based system globally monitoring rare diseases: the experience of the Veneto Region, Italy

Paola Facchin

M Mazzucato, S Manea, C Minichiello, M Bua, P Facchin
Rare Diseases Coordinating Centre - Rare Diseases Registry- Veneto Region, Italy
Azienda Ospedaliera di Padova
Contact: facchin@pediatria.unipd.it

Rare diseases (RD) are those with a prevalence of less than 1/2,000. Since 1999, the European Commission has developed a comprehensive public health approach towards RD, fostering access to information and adequate care. The establishment of monitoring systems is a priority in many RD national strategies. In the Veneto Region, (4.9 million inh), Italy, a web-based registry, recording data on nearly 3,000 RD entities, has been set up since 2002. It connects different users (n = 1,456), involved in RD patients' care, assuring cases' enrolment, the collection of clinical data and access to benefits. So far, 30,147 patients have been registered. The overall raw prevalence of the monitored RD is 3.3 per 1,000 inhabitants (95% CI = 32.5-33.6) and the overall raw annual incidence of RD is 3.85 per 10,000 inhabitants (95% CI = 3.67-4.03). The Registry offers a snapshot of the impact of RD at population level: they account for 4.2% of the total of years of life lost. The Registry has been adopted by other six Italian regions, with populations ranging from 500,000 to nearly five million. This scalability process has highlighted some crucial issues. When monitoring diseases, per sè rare, in small areas, a major concern is the ability to catch the limited number of cases arising from the population. Long periods of observation and the use of multiple sources of cases' ascertainment are needed. Thus, sustainability issues and the use of methods able to integrate different data sources should be considered. Favorable health policies, addressing RD patients' needs, are pivotal for the development of efficient monitoring systems. General issues, as privacy and patients' mobility, can be amplified in their effects when considering small areas. Lessons learned from this inter-regional experience can be applied to other health systems, with comparable populations, when setting up RD monitoring systems, according to the same public health approach.

Promoting health: from data to decisions

Martine Bouvier Gallacchi

M Bouvier Gallacchi, O Beretta, K Frei
Ufficio del medico cantonale, Servizio promozione e valutazione sanitaria, Bellinzona, Switzerland
Contact: martine.bouviergallacchi@ti.ch

Issue and description of the problem

Ticino is one of the twenty-six Cantons of the Swiss Confederation and is located in the southernmost part of the country. Ticino covers an area of 2812 km2 and almost 350'000 people live in this region. The mission of the Ticino health service is promoting health and prevention of non-communicable disease among the population, particularly on four main topics: physical activity, alcohol abuse, smoking and overweight. However, the small size of the area and the consequent limited availability of resources pose several challenges. Firstly there is an issue in terms of the representativeness of the data but equally there are difficulties in terms of the effectiveness of the decision-making process.

Intervention

In order to seek to improve both these aspects, a framework encompassing the whole process from data collection to visualization is under development. It is anticipated that this will improve the capability to provide a reliable representation of the region's health data and issues together with a set of relevant tools to assist decision making.

Lessons learned

Throughout the data collection, the small sample size issue is being addressed by integrating different data sources and looking for correlations among them. In order to define real community health needs, the focus is on epidemiological analysis and multivariate models to try to identify the most relevant characteristics of the respective target. Finally, in order to help decision-makers to take policy decisions and communicate these effectively, the epidemiological results are being represented using visualization models coming from different scientific fields such as extending health promotion on social media (Facebook). It is planned that such initiatives will aid the collection of new data on population needs, monitor feedback on specific topics and targeting the right segment of population.

A qualitative study of the experiences of health information practitioners in a small European country

Sanne Gathoni Thijssen

SG Thijssen[1], *D Gauci*[2], *N Azzopardi-Muscat*[1,2,3]
[1]Department of International Health CAPHRI School of Public Health and Primary Care, Faculty of Health, Medicine and Life Sciences, Maastricht University, The Netherlands
[2]Directorate for Health Information and Research Malta, Malta
[3]Islands and Small States Institute University of Malta, Malta
Contact: sg.thijssen@student.maastrichtuniversity.nl

Background

The quality, timeliness and sustainability of health information systems depend on the contribution of health information practitioners (HIP). The aim of the research project is to obtain an understanding of the features of health information systems in small countries through the perspectives of HIPs in Malta.

Methods

Eight experienced HIPs participated in this study. A structured topic guide was elaborated from the available literature. Participants were randomly assigned to either submit written responses to the questions or to participate in a face-to-face interview. Notes were taken during the interview and a summary was sent back to the interviewee for content validation. Written responses and notes from the interviews were inductively analysed using qualitative content analysis.

Results

Preliminary analysis indicates that health information practitioners in Malta feel that they have an important role in influencing policy-making with close collaboration being stimulated by the country's small size. Concerning international data requests, practitioners believe that although the periodicity is ideal from a health information perspective, small countries struggle with limited resources and population survey fatigue. The use of moving averages and aggregate data was recommended to deal with small numbers issues.

Conclusions

The experiences of HIPs in small countries are important so as to make appropriate policy recommendations on improving health information systems. This study is limited by the small number of participants and findings cannot be generalised to other settings. The interview guide can be applied to explore the experiences of HIPs in other small countries as well as HIPs at regional level

7.G. Regular workshop: Stewardship approach - results from six healthy public policy interventions in three countries

Organised by: Research into Policy to enhance Physical Activity project (REPOPA) and Unit for Health Promotion Research, University of Southern Denmark, Denmark
Contact: araro@health.sdu.dk

Chairs: Arja Aro, Adriana Valente

Background

Stewardship approach is considered an ethical public health approach since it expects governments to provide conditions for good health but at the same time promotes local stakeholders to actively adjust interventions to the local context and needs and also to enhance equity (Nuffield 2007). Stewardship approach supports evidence-informed policy making in which all relevant stakeholders such as different societal sectors, administrators, politicians, researchers, and the policy target groups, are on equal footing. Challenges related to the stewardship approach in the local public health policy making context are that the approach assumes collective and rational involvement and commitment of all relevant stakeholders in pursuing intrinsic, higher order needs in policy making; there should be low power distance but high trust between stakeholders. Further, the power lies with each person involved instead of institution he/she represents (Davis et al 1997).

Topic of the workshop

As a part of the 'Research into Policy to enhance Physical Activity' project (www.repopa.eu, contract No. 281532) stewardship approach was used to guide physical activity policy interventions in Denmark, Italy and the Netherlands, two interventions in each country. The aim was to find out if stewardship interventions increased and improved evidence-informed policy making in different contexts. The six interventions among policy making teams with pre-post and 12 months follow-up were tailored to the mapped needs of each context in terms of the contents and format of the interventions. However, common measures on use of research and other kinds of knowledge such as contextual characteristics and values, facilitators and barriers for cross-sector and stakeholder involvement, and influence of these in policy making decisions were used.

Objectives

This workshop discusses the first intervention results of the cutting-edge topic of evidence-informed policy making. It presents the interventions and preliminary results of the pre- and post-intervention measurements from three countries (abstract No1 from Denmark, abstract No2 from the Netherlands, and abstract No3 from Italy) and discusses the potential for cross-country comparison (abstract No 4). 12 month follow-up results will also be available for the conference. In the end structured discussion on the potentials and pitfalls of the stewardship approach as well as on the comparability of the cross-country results is facilitated.

Key messages

- The workshop will provide much needed empirical evidence on intervention effects in evidence-informed policy making in the central public health topic of physical activity
- The highly debated topic of cross-country comparison of policy interventions is discussed

Politicians learned to request more research knowledge - intervention results from Denmark

C Radl-Karimi

N Loncarevic[1], *C Radl-Karimi*[1], *M Bertram*[1], *G Gulis*[1], *M Thøgersen*[2], *T Skovgaard*[3], *AR Aro*[1]
[1]Unit for Health Promotion Research, University of Southern Denmark, Esbjerg, Denmark;
[2]Danish Institute for Sport Studies, Århus, Denmark;
[3]Institute of Sports and Biomechanics, University of Southern Denmark, Odense, Denmark
Contact: cradl@health.sdu.dk

Intervention aim

The interventions were on physical activity policies at initiation phase; Kolding eight-month workshop and guidance intervention ($n = 21$ team members) aimed to promote inter-sector collaboration; Varde 10-month working group and guidance intervention ($n = 11$) aimed to facilitate systematic strategy development in research knowledge use and inter-sector collaboration.

Methods

The pre ($n = 30$) and post-intervention ($n = 18$) surveys covered e.g. use of research and other knowledge; collaboration across sectors and with stakeholders; influence of stakeholders on policy making. Respondents with pre and post replies (n = 18) were included; the percentages present proportions of those (very) highly agreeing with the statements. Chi square tests and p-value <0.050 were used for statistical significance.

Results

Combined, the interventions significantly increased politicians' requests for research knowledge (pre 38.9%; post 61.1%, p = 0.03) though they did not increase influence of research knowledge on policy making (61.1%;61.1%,NS). Beliefs that research knowledge can be translated into local needs decreased slightly (94.4%;77.8%, NS). A slight increased search for values and need of policy target groups (66.7%;88.2%, NS) did not influence the use of them in policy making (72.2%;76.5%, NS).

Conclusion

The increase of requests for research knowledge by politicians is promising. Though the other results (probably due to the lack of statistical power) did not show significant change, the indicative increase in the interest of the policy target groups' needs and values can be seen a step towards taking those into account later. Becoming more realistic due to interventions might explain the decreased belief in local translatability of research knowledge.

Main message: Stewardship interventions can increase research-policymaking interaction and also sensitize policy-makers to local and target groups' needs and values; these are pre-requisites for later collaboration.

Policy interventions on physical activity among chronically ill and elderly: the Netherlands

Annemiek Dorgelo

A Dorgelo, J Jansen
CBO, Utrecht, The Netherlands
Contact: a.dorgelo@cbo.nl

Intervention aim

In Utrecht one intervention aimed to enhance physical activity in one neighborhood, especially among chronically ill by strengthening Physical Activity-Plan to promote inter-sector networks and facilitate information and skills training of the involved stakeholders (N = 11). The other intervention focused on the initiation phase of policy making; based on the assessed needs for a local policy on physical activity for senior citizens (65+) and aimed to promote inter-sector collaboration, networking and informational guidance for the involved stakeholders (N = 15).

Methods

The pre (n = 26) and post-intervention (n = 21) surveys with both common REPOPA questions and context specific ones were done. The preliminary descriptive results are given. Final results with also 12-month follow-up will be available for the conference.

Results

Both interventions combined increased the belief of research knowledge being (very) important (pre:73%, post:84%). The perceived influence of research knowledge in policy making decreased (pre:24% (very) high, post:12%), but the influence of external stakeholders on policy making increased (pre:20%, post:29%). The interventions seemed to increase the percentages of those who did not know if their organization used information from internal (pre:8%, post:29%) and external stakeholders (pre:4%, post:29%).

Conclusion

Even if the interventions seemed to increase the perceived importance of research knowledge in policy making, they were not perceived influencing actual policy making. This result as well as somewhat surprising result of increased proportion of those not knowing if their organization used information of internal or external stakeholders can be interpreted that the intervention increased critical thinking.

Main message: Stewardship interventions can increase awareness of research among policy makers; further work is needed to translate this into practical application of evidence in policy making.

Policy interventions on children and physical activity: Lazio and Tuscany in Italy

Liliana Cori

L Cori[1], F Bianchi[1], T Castellani[2], A Valente[2]
[1]Institute of Clinical Physiology, National Research Council (IFC-CNR), Pisa, Italy
[2]National Research Council, IRPPS-CNR, Rome, Italy
Contact: liliana.cori@ifc.cnr.it

Intervention aim

The stewardship interventions in Italy were devoted to two local policies. In Lazio Region, Municipaliadi, the intervention was as sports competition for school children, promoted by the Municipality of Rome integrating education and physical activity. A Delphi-like working group on knowledge and research translation into policy making was used by IRPPS-CNR, involving 18 people from public health doctors, researchers, politicians and journalists.

In Tuscany Region, IFC-CNR in collaboration with Valdarno Health Society, carried out an intervention promoting setting up a group of experts (pediatrics, cardiology, pneumology, psychology, epidemiology, sociology, educating) to produce research to evaluate physical activity performance (100 children via personal devices); in addition, a seminar for public administrators was given to learn about reporting and searching scientific literature.

Methods

Pre and post measurement questionnaires with both common REPOPA questions and context specific ones were administrated to three members of the working group of the Municipality and five members of the scientific group supporting the intervention in Valdarno. Preliminary intervention results of these eight participants are presented.

Results

Post intervention, the respondents declared improved awareness and collaboration between researchers and policy makers as well as opportunities to share experiences and lessons learnt especially in planning participatory research. They also experienced higher level of access to acquiring research knowledge and more requests for research knowledge from politicians.

Conclusion

The stewardship interventions showed positive results, promoting knowledge use, also among politicians, dissemination and even production of scientific research at the local level.

Main message: Stewardship approach provides good opportunity for creative, evidence-informed activities based on assessment of contextual needs and possibilities.

Challenges and options in comparing cross-country policy intervention results

Gabriel Gulis

G Gulis, AR Aro
Unit for Health Promotion Research, University of Southern Denmark, Esbjerg, Denmark
Contact: Ggulis@health.sdu.dk

Background

Stewardship in evidence-informed policy making guides use of research knowledge and adjusts it to local contexts and needs. Certainly the policy making traditions and systems are different in Denmark, Italy and the Netherlands. This however does not mean that the three country results are not comparable. The six interventions of physical activity policy making have adjusted their intervention components to the locally salient needs; they all used the stewardship approach to guide the interventions. The common outcome was increased or improved evidence-informed policy making; the outcome was measured by both common and context specific measures, and to understand the intervention process, by process evaluation. The chosen approach is in line with e.g. Hawe et al 2004 and Aro et al 2008 emphasizing how in complex interventions it is not the intervention contents, which are standardized; instead, process and functions are made similar; integrity is not quality assurance of the intervention, but consistency with the theory or the change process.

Conclusion

Though the small numbers of respondents in this kind of policy research limits rigorous quantitative analysis, results of these interventions can be very informative in increasing understanding of the researcher-policymaker interactions. Taken the preliminary results of the six interventions together, one can conclude that stewardship interventions could increase awareness, appreciation, critical thinking and also requests for research knowledge among policy makers. These are all necessary though not sufficient conditions for actual evidence-informed policy making. This presentation will highlight the central findings of the interventions and raise theoretical and methodological questions for further discussion with the presenters and the audience.

Main message

Complex policy interventions are challenging and require non-standard methodological approaches in which context is taken into account.

7.H. Oral presentations: Location, location and literacy

Place of residence and maternal health behaviours

Wendy Sword

W Sword[1], J Eyles[2], P DeLuca[2], M Heaman[3], D Kingston[4], S Buist[5], N Johnston[6], A Sprague[7]
[1]School of Nursing, University of Ottawa, Ottawa, Canada
[2]School of Geography & Earth Sciences, McMaster University, Hamilton, Canada
[3]College of Nursing, University of Manitoba, Winnipeg, Canada
[4]Faculty of Nursing, University of Alberta, Edmonton, Canada
[5]News Department, Hamilton Spectator, Hamiilton, Canada
[6]Department of Medicine, McMaster University, Hamilton, Canada
[7]BORN Ontario, Ottawa, Canada)
Contact: wendy.sword@uottawa.ca

Background

'Neighbourhood' is a relevant context for understanding health disparities yet few studies have examined neighbourhood effects on maternal health. Our study explored neighbourhood variation in maternal health behaviours in a Canadian city and determined the influence of neighbourhood characteristics on behaviours.

Methods

This population-based study used aggregate data from a perinatal database and Census of Canada. Health behaviours of interest were no first trimester visit, smoking in pregnancy, and formula feeding. Data were geocoded to the neighbourhood level (census tract) in Hamilton, a large industrial city. Standardized rates for behaviours and neighbourhood-level variables were calculated, and maps were created to reveal spatial patterns. Regression analyses were done to predict each health behaviour against neighbourhood-level variables. An invitational meeting was held with stakeholders to discuss the implications of study findings.

Results

There were clear geographic spatial patterns for the health behaviours, with higher rates clustered in downtown and industrial areas of the city. In all three regression models, neighbourhood characteristics of (1) percent persons living in poverty, (2) percent females unemployed, (3) percent females with low education, and (4) percent immigrants were predictive of behaviours, with the first three characteristics having positive associations and the latter having a negative association.

Conclusions

Findings are consistent with other studies that suggest the relative importance of place of residence in determining health. The contextual factors influencing health behaviour are diverse and research is needed to understand their complex interplay and the underlying mechanisms by which neighbourhood impacts maternal health behaviours. Stakeholders recommended that residents be engaged and partnerships between neighbourhood and public health be strengthened to effect changes to promote healthy behaviours. The need for a broader policy approach also was identified.

Key messages

- Place of residence is important in determining maternal health behaviours
- Research is needed to understand the complexity of factors and mechanisms underlying maternal health behaviour

Neighborhood environment in adolescence and symptoms in mid-life: a cross-classified analysis

Per Gustafsson

PE Gustafsson, A Hammarström, M San Sebastián
Umeå University, Dept of Public Health and Clinical Medicine, Umeå, Sweden
Contact: per.e.gustafsson@umu.se

Recent years have seen a nascent understanding of how both neighborhood and individual social determinants can act over the life course to shape health in adulthood, for example by accumulation of disadvantaged neighborhood conditions across the life course. The present prospective study seeks to contribute to this body of knowledge by examining the contribution of neighborhood disadvantage at four life course stages, from adolescence to mid-life, to self-reported functional somatic symptoms (FSS) in mid-life. The specific aims are to 1) examine the direct contribution of the neighborhood context from different life course periods (corresponding to a 'sensitive period' life course model), and 2) whether early life neighborhood context modifies the impact of later exposure (corresponding to a 'sensitive period with later effect modifiers' model). The sample is based on the Northern Swedish Cohort, comprising 1001 individual, who have been followed by surveys at age 16, 21, 30 and 42 years concerning social and material life conditions, as well as added register data about neighborhood socioeconomic characteristics corresponding to each survey year. The outcome FSS was measured by self-reported symptoms at age 42, as well as at age 16. In cross-classified multilevel models (level 1 = individual; level 2 = neighborhood of residence at each life course stage), FSS at age 42 was regressed on neighborhood and individual disadvantage. Preliminary analyses suggest that current neighborhood of residence played a greater independent role than neighborhood from earlier life in explaining FSS at age 42. However, there was also an interactive effect between adolescent and concurrent neighborhood of residence. In conclusion, the present study suggest that the residential environment during upbringing may contribute to the variation in adult health more by changing one's susceptibility to later contextual disadvantage than by direct effects.

Key messages

- The neighborhood environment in adolescence may be important for health in mid-life by modifying the vulnerability for later exposure to neighborhood environments
- The impact of early life neighborhood on adult health is consistent with a life course model of sensitive period with later effect modifier

Green space and mental wellbeing in deprived urban communities: how much green space is enough?

Catharine Ward Thompson

C Ward Thompson[1], *P Aspinall*[2], *J Roe*[3], *L Robertson*[4], *D Miller*[5]
[1]OPENspace Research Centre, University of Edinburgh Lauriston Place, Edinburgh EH3 9DF, UK
[2]School of the Built Environment, Heriot-Watt University, Edinburgh, EH14 4AS, UK
[3]Stockholm Environment Institute, University of York, YO10 5DD, UK
[4]OPENspace Research Centre, University of Edinburgh Lauriston Place, Edinburgh EH3 9DF, UK
[5]The James Hutton Institute, Aberdeen AB15 8QH, UK
Contact: c.ward-thompson@ed.ac.uk

Background

A growing body of evidence shows a relationship between levels of green space in the local neighbourhood and people's health and wellbeing, especially for low-income and deprived urban populations. However, a question remains as to what levels of green space within a community are associated with significant differences in stress or wellbeing, and whether this varies for different sub-groups in the population.

Methods

This paper draws on a cross-sectional survey of a sample ($n = 305$) of adults (aged 16–87) living in areas of high urban deprivation in Scotland, UK. Outcome measures included levels of stress, mental wellbeing, self-report levels of physical activity and general health. An independent measure of green space within a 300 m radius of each participant's home, including private gardens and public green space, was used. Self-report measures include perceptions of quantity, quality and safety of local green space, as well as frequency of visits to it and views of it from the home.

Analysis involved using Latent Class to explore different sub-groups in the population and AnswerTree regressions to identify the best discriminating variables, including levels of green space, to predict health and wellbeing outcomes.

Results

There are differences between men and women, with two sub-groups in the female sample, one of which is younger, with good overall health but higher stress levels compared with the other group. When looking at the sample as a whole, using AnswerTree, different percentages of green space cover best discriminate between those with lower or higher stress levels, and those with lower or higher levels of mental wellbeing. Ongoing analysis will reveal results for the different sub-groups identified via Latent Class.

Conclusions

(a) In such deprived urban populations, higher levels of green space may be associated with lower stress levels, but sub-groups within the female population have different patterns of perceived stress, associated with different levels of green space in the living environment; and (b) levels of green space in the neighbourhood environment need to comparatively high before benefits associated with stress reduction are likely to be found in certain sub-groups. This has important implications for future public health and environmental planning strategies for salutogenic urban environments.

Key messages

- Levels of green space in the local neighbourhood may be associated with lower self-reported stress for different groups among deprived urban populations
- The levels of green space in the neighbourhood environment associated with lower stress and better wellbeing have implications for green space standards in urban planning and housing design

The role of municipalities in reducing social inequalities in health - the case of Norway

Elisabeth Fosse

E Fosse[1], *MK Helgesen*[2]
[1]Department of Health Promotion and Development, University of Bergen, Norway
[2]Norwegian Institute for Urban and Rural Research, Oslo, Norway
Contact: Elisabeth.Fosse@uib.no

Background

The main aim of Norwegian National Public Health Act (NPHA) is to reduce social health inequalities (HI) by adopting a Health in all Policies (HIAP) approach. Most policies are to be implemented at the local level and municipalities are responsible. This strategy is in accordance with the WHO commission on the social determinants of health (CSDH), and Norway is among the few countries aiming to implement CSDH recommendations. Municipalities are mandated to develop overviews of the health situation for different population groups, integrate these in municipal plans and develop intersectoral policies to address the challenges. The aim of this paper is to answer two questions: How do municipalities implement the policies and how can they reduce social inequalities?

Methods

Data consist of two surveys to all municipalities in 2011 and 2014. The study participants were administrative leaders in all municipal sectors. The main focus was on how the municipalities organised their policies regarding HI and HIAP.

Results

In 2011 13% had developed an overview and in 2014 the number was 25%. In 2014 we asked if the overview was used to make priorities between policies. 12% had used it to prioritize in their Action Program and 4% in their Master Plan. In the Master Plan local governments outline their long term economic priorities. In 2011 95% had established intersectoral working groups. In 2014 the number was reduced to 62%. In 2014 41% addressed issues of HI in the plan, while 71% addressed HI in measures for health promotion and prevention.

Conclusions

The study showed that the municipalities to a small extent had adopted the principles of HIAP and HI. Many municipalities focused mainly on life-style and health-care related measures. The findings identified a divide between the national policies and the strategies adopted at the municipal level to implement the NPHA. However, results indicate that local governments gradually adopt HIAP policies to reduce HI.

Key messages

- Reducing HI and developing HIAP need to involve all sectors of society. National government has a particular responsibility in securing resources to enable municipalities to implement the policies
- It is important to acknowledge that developing HIAP and reducing HI is a process of raising awareness also in other sectors than health, particularly among political and administrative leaders

Present status of patient orientation in Germany

Kerstina Horch

K Horch
Robert Koch - Institute, Berlin, Germany
Contact: horchk@rki.de

Background

In the German health system, a stronger patient orientation has been developed since 2000, based on two health policy aims: a) Better efficiency and higher quality in the health system, and b) improve empowerment and increase the health competence in the population. A survey in 2009 studied and evaluated the level of patient orientation in the population.

Methods

A postal questionnaire was sent to a national sample of 1,542 women and 1,456 men (aged 18–75 years). Response rate was 57.3%. Independent variables were age, sex, education and social class. Dependent variables were satisfaction with contact with the health system, knowledge about health-related themes, level of active contact with and opportunities for influencing the health system. Parameters of competence, attitude, activity and satisfaction were related to socio-demographic and -economic criteria.

Results

- Before consultation and/or treatment, 28% sought information about the physician/hospital.
- The majority felt missing information on where to complain (88%), quality of nursing homes (83%) and of ambulant health service (81%), and cost questions (78%).
- 73% wanted more information about their rights as patients.
- Only 14 % knew about the national patientombud that was established in 2000.
- 36% assessed the possibilities for implementing their patient rights as good, 50% as less good and 14% as bad.
- 33% meant they had a reason to complain about their contact with the health system. Of these only 40% complained.
- There were variations of these levels between different socio-demographic and socio-economic groups.

Conclusions

This study shows that the level of patient orientation in the population in Germany is rather low. The levels vary according to the various population groups.

Key messages

- The German political aims on patient orientation have not yet been fulfilled
- The information towards the population should be increased, tailor-made according to age, sex and socio-economic status

Health literacy of adults in Germany - Findings from the 'German Health Update', wave 2013–2014

Susanne Jordan

S Jordan, J Hoebel
Dept. Epidemiology and Health Monitoring, Robert Koch Institute, Berlin, Germany
Contact: jordans@rki.de

Background

In today's information society, health literacy is considered important for health maintenance and disease management. In this context, dealing with health information is fundamental and requires different cognitive and social skills. The aim of this study was to investigate the distribution of health literacy levels in the adult population of Germany, and to identify associations with health behaviours and health status.

Methods

The analyses were based on data from the 2013–2014 wave of the 'German Health Update' study, a cross-sectional survey of the German-speaking adult population of Germany. Health literacy was assessed with the short form of the European Health Literacy Questionnaire (HLS-EU-Q16), along with questions on socio-demographics, health behaviours and health status. The HLS-EU-Q16 index was divided into three health literacy levels: 'adequate' (score 13–16 points), 'problematic' (score 9–12) and 'inadequate' (score 1–8). Analysis were stratified by sex, age and education.

Results

The HLS-EU-Q16 index could be calculated for 4,845 respondents. According to the criteria of the HLS-EU-Q16, more than half of the adults had 'adequate' health literacy (55.8%; 95% CI = 53.9-57.6). Every third person (31.9%; 95% CI = 30.3-33.6) had 'problematic' and almost every eighth person (12.3%; 95% CI = 11.0-13.8) had 'inadequate' health literacy. We found significant differences in health literacy by educational level, but no differences in health literacy by sex and age group. Certain health behaviours were positively associated with health literacy. A low health literacy level was associated with poorer physical and mental health.

Conclusions

In Germany, a significant proportion of adults shows difficulties in health literacy. Moreover, health literacy is socially unequally distributed and associated with specific health behaviours and health outcomes. The results point to a need for action to improve health literacy in the adult population.

Key message

- The results from the 'German Health Update' study are the first of its kind in Germany and point to a need for action to improve health literacy in the adult population in Germany

7.I. Regular workshop: Getting public health ethics into practice

Organised by: EUPHA Section Ethics in Public Health
Contact: peter.schroder@maastrichtuniversity.nl

Chair: Els Maeckelberghe

Background

Ethics is the philosophical discipline that advises on decision making criteria when difficult choices are to be made. Research has shown over the last years that public health researchers and practitioners 'must confront numerous ethical choices' but they 'often feel ill-prepared to make the ethical trade-offs' and perceive a need for more education and support to make these decisions.' (Gaare Bernheim 2003) Other research has shown that schools of public health are more and more interested in teaching ethics. Yet, little ethical capacity is available to answer these needs. Schools of public health have expressed their need for support from ethicists and ethical working groups (Aceijas et al. 2012).

Issue: Not many initiatives or curricula are available that can be used and integrated into teaching programmes of schools of public health or in the continuous educational programmes of professional public health associations. Discussions and developments of ethical tools and curricula remain local initiatives. More discussions are needed how ethical reflection can best be offered for public health practitioners and researchers. Can ethical tools or frameworks be helpful to empower professionals in applying ethics in daily practice?

It is also not clear if philosophers and public health professionals always mutually understand each other and mutually expect the same things from each other. On the one hand, philosophical ethicists often remain in their ivory towers, on the other hand, public health practitioners expect readymade solutions or pathways for ethical solutions from philosophers. More interdisciplinary dialogues between philosophers and public health professionals are needed so that ethical reflection can be successfully applied and integrated into public health practice.

Layout

This workshop is run by practitioners and philosophers to give an opportunity to share experiences and to discuss with the audience. We are offering the experiences of two representatives of professional public health groups organized at different levels (national, local) who identified needs for ethics trainings and are involved in ethics education within their professional groups. Furthermore, two philosophers experienced in teaching ethics to public health programmes discuss controversial standpoints.

Objective

The workshop shall offer a forum to exchange (controversial) views on the best possible development and integration of ethical education in public health and to discuss with participants of the workshop how best ethics and public health can work together.

Added value

The EUPHA section on 'ethics in public health' is eager to learn from the workshop in what direction also its work should evolve.

Key messages

- Practitioners are interested in learning about ethical reflection, yet, the discussion of the question what practitioners and ethicists mutually expect from each other is still in its infancy
- A continuous interdisciplinary discourse of ethics and public health is important so that ethics can deliver the theories, trainings and tools that are helpful for public health research and practice

Generating a discourse on public health values and practice

Farhang Tahzib

F Tahzib
West Sussex County Council, UK
Contact: Farhang.tahzib@gmail.com

Background

The Ebola outbreak, challenges of climate change, health inequalities and a range of other issues have highlighted the importance of public health values based leadership and approaches. Ethics is often considered as a philosophical issue and its implications for public health policy and practice are not made explicit or understood. Public health ethics is a growing discipline and needs to free itself from individualistic clinical bioethical thinking. The Faculty of Public Health in UK has been leading some work to advance the discourse on public health values and implications for practice.

Methods

Development of the Faculty strategy, new curricula and emerging public health issues provided opportunity to explore further importance of public health ethics and implications for practice. There have been interviews and focus groups with cross section of public health practitioners in UK, reflections on literature and discussions on the issues.

Results

There is recognition of the fundamental interdependence of all peoples, their environments, and their right to the resources for health, inadequacies of medical models and clinical bioethics in addressing public health challenges, and need for coherent community based approaches. Justice, knowledge, solidarity and service are emerging as some key public values. There are at present limited opportunities for learning and reflecting on public health ethics and the role values play. There is need for explicit clarification and learning on the issues as part of any educational programme.

Conclusions

There is emerging consensus around some public health values. There is need to make such issues explicit, an educational process and that public health leaders stand up to ensure they are put into action.

Key messages

- Public health values do matter and have implications for policy and practice.
- Educational activities will need to advance learning, reflection and action as a collaborative growing discourse.

Teaching ethical principles as starting points for public health ethical discussions in short courses

Peter Schröder-Bäck

P Schröder-Bäck[1], P Duncan[1], W Sherlaw[2], K Czabanowska[1], C Brall[1]
[1]Department of International Health, Maastricht University, Maastricht, The Netherlands
[2]EHESP, Rennes, France
Contact: peter.schroder@maastrichtuniversity.nl

Background

Several institutions requested short educational courses in public health ethics (PHE) from the authors. Representatives of these institutions shared the perceived need to acquaint public health professionals with ethics and ethical methods.

Methods

A short PHE course that could be taught in 3–6 hours was developed. This course introduces seven ethical principles and uses case study discussions to develop ethical argumentation and justifications. The curriculum has been published and is made available to course participants as a summary of the course.

Results

A short PHE course can encourage discussion and reflection on ethical issues in public health to public health students, researchers and practitioners without background in ethics. The ethical principles can be specified into checklists to identify ethical conflicts in practice or in the course case studies. Nevertheless such principles or checklists should be seen as starting points for ethical discussions, argumentations and justification. Introducing ethical theories and principles in such a short training course is challenging. But when - in the second part of the course - participants discussed cases and apply the principles and their derivative checklists, the usefulness of these ethical tools has proved particularly valuable to participants, i.e. certain morally relevant and controversial aspects in the cases which may have been neglected were suitably revealed.

Conclusions

A short PHE course built around ethical principles and a checklist is a good starting point for ethical reasoning in public health. Participants were sensitized to ethical issues and could take home a PHE tool box for ethical analysis in public health practice and research.

Main messages: A short course founded on ethical principles as core concepts coupled with selected case studies is an effective and efficient starting point for teaching PHE in crowded public health curricula.

Teaching professionals to use a methodology for systematic ethical reflection

Babette Rump

BO Rump[1], C Kessler[2], A Krom[3], F Woonink[1], J van Steenbergen[4], M Verweij[5]
[1]Municipal health service Utrecht Region, Zeist, The Netherlands
[2]Utrecht University, Utrecht, The Netherlands
[3]Rathenau Instituut, Amsterdam, The Netherlands;
[4]RIVM, Bilthoven, The Netherlands;
[5]Wageningen University, Wageningen, The Netherlands
Contact: brump@ggdru.nl

Background

The moral problems raised by daily practice of infectious disease control extend beyond the ethical arena of medical ethics. Infectious disease professionals need to place ethical issues like autonomy and informed consent in the context of public health and the common good. The tools that are used for ethical reflection in clinical/medical ethics mainly aim at autonomy, consent and reduction of harm and do not address this public health context. This makes the tools less suitable for systematic reflection in the field of infectious disease prevention. We therefore developed a new tool for systematic ethical reflection in infectious disease control.

Methods

We systematically explored cases reported to the national Centre of Infectious Disease Control and reduced the underlying problems to a classification of 10 moral issues. We subsequently designed a methodology for systematic ethical reflection specifically aiming at the nature of these issues.

Results

We trained 8 Municipal Health service teams (58 professionals in total, 25 medical doctors, 31 public health nurses and 2 others) in the use of a new methodology for systematic ethical reflection.

Conclusions

We learned that:

- a methodology for systematic ethical reflection meets the ethical needs of Public Health professionals
- two training session are not enough to empower the participants to actually use the methodology.
- there is a specific extra need for fundamental ethical knowledge, in specific there is a need for midlevel principles that represent the ethical issues in daily practice of Public health.
- There is a specific extra need for guidance on how to end / come to a conclusion in an ethical deliberation process

Key message

- Teaching professionals to use a methodology for systematic ethical reflection is an effective and efficient starting point to empower public health professionals to apply ethics in daily practice.

The place of frameworks in ethical decision-making

Angus Dawson

A Dawson
University of Sydney, Australia
Contact: a.j.dawson@bham.ac.uk

Background

A number of different frameworks have been proposed as a means to guiding public health practitioners to make ethical decisions. Such frameworks most often take the form of a list of principles or values. This paper discusses a series of possible problems with such an approach and proposes an alternative. The alternative seeks to articulate a set of ordered questions to guide non-experts to deliberate about what is most relevant in responding to a pressing ethical issues in public health.

Methods

Key paradigmatic examples from a survey of different ethical frameworks from the published literature will be presented and discussed using analysis and argument.

Results

When helping non-experts to make informed ethical judgments it is inappropriate to focus on mid-level abstract principles. It is suggested that a series of ordered questions is more likely to be practically relevant and user-friendly.

Conclusions

Question-based frameworks have various advantages over value-based frameworks. Experts in public health ethics need to work with policy makers and public health practitioners to formulate more nuanced ethical frameworks.

Main message: Responding to individual problems and cases is an excellent way to respond to the ethical challenges that confront public health practitioners everyday.

7.K. Regular workshop: Availability, comparability and quality of data for health information in Europe

Organised by: National Institute for Health and Welfare, Helsinki, Finland and Instituto Superiore di Sanità, Rome, Italy
Contact: hanna.tolonen@thl.fi

Chairs: Marco Ferrario; Jean-Marie Robin

Health information including mortality and morbidity rates, distributions of risk factors and health behaviours/lifestyle factors, environmental markers etc. obtained from variety of data sources is widely used to support policy decisions, planning and evaluation of prevention activities and health promotion campaigns as well as for research. Regardless the obvious needs for this type of data both at the national level and more widely in Europe, there is still gaps in data availability and especially in the comparability and quality of data between countries.

Positive development in the availability, comparability and quality of health information in specific topics has been achieved through individual projects. For objectively measured health indicators, based on physical measurements and collection of biological samples such as blood, urine and saliva, initiatives around health examination surveys and human biomonitoring have prepared standardized protocols and successfully tested in the pilot projects. In many countries, it is also possible to use routinely collected clinical data to establish disease based registers.

The development and implementation of effective surveillance systems produce reliable and comparable indicators, enabling health professionals and policy makers to trace differences within and between countries, to study trends and make better decision on planning and evaluating preventive programs health care delivery resource allocation and research. The BRIDGE Health Project includes, within its aims, to develop of blue print for a sustainable and integrated EU Health information system by developing common methods for standardizing the data collection.

Key messages

- Nationally representative, high quality health information which is comparable between countries is needed in Europe
- The WHO Global action plan for prevention and control of non-communicable diseases recommends to monitor distribution and frequency of unhealthy lifestyles, risk factors and chronic diseases

Health examination surveys - added value for health interview surveys, availability and comparability in Europe

Hanna Tolonen

H Tolonen, K Kuulasmaa, P Koponen
Department of Health, National Institute for Health and Welfare, Helsinki, Finland
Contact: hanna.tolonen@thl.fi

The European Health Examination Survey (EHES) Pilot project was conducted in 2009–2012. It prepared a standardized survey protocol for national HESs and trained national survey organizers in 12 countries. HESs provide objective information about health and risk factors in the population. HESs are complementary to health interview surveys (HIS), which provide self-reported information. Self-reported information suffers from reporting and recall bias, i.e. people provide socially more acceptable answers to the questions and in some cases do not remember their diagnoses. Furthermore, for several main chronic disease risk factors such as hypertension, high cholesterol and diabetes, a large proportion of the population are unaware of their condition.

Between 2005–2014, a national HES has been conducted in 14 European Union Member States. These surveys covered the adult population with varying age range but all included 35–64 years old men and women. Survey methods between these surveys are well comparable since most of them were part of the EHES Pilot Project or used the standardized survey protocols developed in EHES and the earlier Feasibility of a European Health Examination Survey (FEHES) Project.

Further development of the survey protocols and quality assurance will be done under the framework of the BRIDGE Health project.

Population-based registers: what do we need to produce reliable and comparable indicators?

Simona Giampaoli

S Giampaoli, Luigi Palmieri
Istituto Superiore di Sanità, Rome, Italy
Contact: simona.giampaoli@iss,it

The objective of a population-based register is to evaluate frequency, distribution and prognosis of a disease providing occurrence indicators, as attack/incidence rate, prevalence, case-fatality and survival rate, to evaluate trends and changing pattern, outcomes and treatment effectiveness, and to monitor prevention programs. Population based registers are also used to investigate causes of disease. Although registries are extremely useful, they require considerable financial resources to implement and maintain.

Within the EUROCISS Project the inventory of cardiovascular disease population based registers, based on record linkage of mortality and hospital discharge records, showed differences in the selection of the ICD codes for the identification of events, in the age and size of the population under surveillance, in the validation procedures.

The accuracy of rates produced by a population based register depends on the standardization of the definition of event, on the completeness, validation and quality control of data collected for the numerator (death, or hospital discharge register, or GPs database) and the denominator (census or population register); completeness also depends on tracing patients treated outside the hospital or the area under surveillance.

Procedures based on standardized data collection from different data sources, appropriate record linkage and validation methods were set up by previous projects of the Health Monitoring Program of DG SANTE to assess processed comparable and reliable indicators for monitoring different chronic diseases. A common manual of operations with a step-wise procedure for the implementation of population based registers of chronic diseases, as well as guidelines for training personnel will be developed under the framework of the BRIDGE Health Project.

The availability of data on maternal and newborn health in routine systems in 29 European countries

Jennifer Zeitlin

M Delnord[1], AD Mohangoo[2], K Szamotulska[3], M Gissler[4], J Zeitlin[1], and the Euro-Peristat Scientific Committee[5]
[1]INSERM, Obstetrical, Perinatal and Paediatric Epidemiology Research Team, Centre for Epidemiology and Biostatistics (U1153), Paris-Descartes University, Paris, France
[2]Netherlands Organization for Applied Scientific Research, TNO Healthy Living, Department Child Health, Leiden,The Netherlands
[3]Department of Epidemiology, National Research Institute of Mother and Child, Warsaw, Poland
[4]THL National Institute for Health and Welfare, Information Services Department, Helsinki, Finland
[5]The Euro-Peristat Scientific Committee: Gerald Haidinger (Austria), Sophie Alexander (Belgium), Pavlos Pavlou (Cyprus), Petr Velebil (Czech Republic), Anne-Marie Nybo Andersen (Denmark), Luule Sakkeus (Estonia), Mika Gissler (Finland), Béatrice Blondel (France), Nicholas Lack (Germany), Aris Antsaklis (Greece), István Berbik (Hungary), Helga Sól Ólafsdóttir (Iceland), Sheelagh Bonham (Ireland), Marina Cuttini (Italy), Janis Misins (Latvia), Jone Jaselioniene (Lithuania), Yolande Wagener (Luxembourg), Miriam Gatt (Malta), Jan Nijhuis (Netherlands), Karin van der Pal (Executive board member, Netherlands), Kari Klungsoyr (Norway), Katarzyna Szamotulska (Poland), Henrique Barros (Portugal), Mihai Horga (Romania), Jan Cap (Slovakia), Natasa Tul Mandić (Slovenia), Francisco Bolúmar (Spain), Karin Gottvall (Sweden), Sylvie Berrut (Switzerland), Alison Macfarlane (United Kingdom). Project coordination: Jennifer Zeitlin, Marie Delnord, Ashna Hindori-Mohangoo
Contact: jennifer.zeitlin@inserm.fr

Background

International comparisons of perinatal health indicators provide performance benchmarks and underpin maternal and child health policies. This study aimed to assess the availability of perinatal health indicators in European countries and to investigate whether the use of routine linkage affects indicator availability.

Methods

The Euro-Peristat project collects population-based aggregate data from 29 European countries on a set of 10 core and 20 recommended perinatal health indicators. For the European Perinatal Health Report 2010, Scientific Committee members provided data on indicators and meta-data on the characteristics of routine data sources, including use of routine linkage.

Results

No country could provide all 30 Euro-Peristat indicators. The availability of core indicators was good: 12 countries (41%) provided at least some data on all 10 indicators and 13 (45%) provided 9 out of 10. Recommended indicators were less available: 13 out of 20 were provided on average. Only 17 countries provided data on smoking during pregnancy, 11 on maternal body mass index, and 15 on timing of antenatal care initiation. 17 countries (59%) linked at least one data source, mainly birth and death certificates ($N = 15$) and medical birth registers with hospital discharge data ($N = 6$) or vital statistics ($N = 6$). Countries with linked data produced 9 core and 16 recommended indicators, on average, whereas countries without linkage produced 8 core and 10 recommended indicators.

Conclusions

Euro-Peristat indicators are available in many European countries, confirming the feasibility of routine reporting. Our results suggest that record linkage can improve availability and promotion of linkage is a priority for Euro-Peristat's future work. This approach to mapping the maternal and newborn data in national registers could be useful for other reproductive and child health data sources and other health domains in BRIDGE Health.

Assemble key health system performance indicators and related (meta)information

Maria M. Hofmarcher

MM Hofmarcher[1,2], J Simon[2], Z Or[3], P Smith[4], R Busse[5]
[1]Health System Intelligence, Vienna, Austria
[2]Medical University of Vienna, Department of Health Economics, Centre of Public Health, Vienna, Austria
[3]Institut de Recherche et Documentation en Economie de la Santé - IRDES, Paris, France
[4]Imperial College, London, UK
[5]Technische Universität Berlin, Fachgebiet Management im Gesundheitswesen. Berlin, Germany
Contact: maria.hofmarcher@healthsystemintelligence.eu

Improving data collection and using available information to underpin the improvement of the performance of health systems is crucial to enhance returns on health investments (EC 2013). Even though progress was made to monitor the health of the population and the performance of health systems, methodological challenges remain to tackle and unify reporting standards on relevant data and indicators, and to establish coherent health system performance assessment frameworks (EXPH 2014). To advance work further, clear evidence is needed on why are specific health system indicators important and what are the absolutely necessary indicators?

The aim of the presentation is to discuss

* different approaches for compiling relevant health system indicators; e.g. a normative approach through modelling and theoretical frameworks, or a positive approach by looking at countries which are requested to report on health system reform progress (e.g. the European Semester) and their lists of used indicators;

* key issues needed to be taken into consideration and defined in order to describe and standardise indicators (e.g. Why it is useful to have a particular indicator? How to use the indicator?)

* the relevance of health system characteristics (e.g. care sectors features, payment mechanisms) in putting together key health system performance indicators; and
* the importance of establishing a minimum basic indicator set and ways to do this.

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Human biomonitoring - special features of HBM and its synergies with other health information instruments?

Anke Joas

A Joas[1], LE Knudsen[2], M Kolossa-Gehring[3], A Castano-Calvo[4], G Schoeters[5]
[1]BiPRO, Munich, Germany, Department of Public Health, Munich, Germany
[2]University of Copenhagen, Copenhagen, Denmark,
[3]Umweltbundesamt (UBA),Berlin, Germany,
[4]Instituto de Salud Carlos III (ISCIII), Madrid, Spain
[5]Vlaamse Instelling voor Technologisch Onderzoek (VITO), Mol, Belgium
Contact: anke.joas@bipro.de

Human Biomonitoring (HBM) uses biomarkers (BM) for assessing human exposures to natural and synthetic compounds in the environment. BM are concentrations of chemical substances, their metabolites, or reaction products in human tissues or specimens. HBM is useful of identifying risks of chemical and other environmental exposures from food, air, water, consumer products in the general population and specifically vulnerable or particularly exposed sub-groups. HBM provides the only direct method of determining exposure to particular substances and is more specific and sensitive than environmental monitoring. It allows stratification by health determinants such as age, gender, region, habitation, occupation, lifestyle, dietary habits, exposure hot spots and socioeconomic status.

HBM builds on a study protocol, defining all aspects of study population, study design, and study size, recruitment of study persons, questionnaires for identification of clinical and physiological data and potential exposure sources, sampling and thorough sample processing, chemical analysis, data management, interpretation and communication. Harmonisation of study design, sample analysis, data treatment and evaluation is necessary when comparing measurements and for publication purposes. Quality Control is to be included in all steps of the process.

In this context, there are a number of potential synergies with health information and health examination surveys, dietary intake surveys and health registry data, which could help to limit costs and increase participation rates.

BRIDGE Health will further develop a strategy for bridging data collections between existing surveillance systems and for setting priorities in collaborative data elaboration for health information. The European HBM Initiative (EHBMI) shall join forces of European Member States, the European Commisison and EU Agencies to guide the further research and joint activities in HBM.

7.L. Regular workshop: Public Health Nutrition: Major Policy Areas in Need of Decisions

Organised by: WHO Regional Office for Europe / EUPHA Section on Food and Nutrition
Contact: christopher.birt@liverpool.ac.uk

Chairs: Joao Breda, Christopher Birt

In the context of worldwide discussion of the need for an international convention on healthy nutrition, similar to that agreed for tobacco, the joint organisers have arranged workshops at the last two European conferences on matters relating to any such future convention. This year the organisers agreed to plan a workshop designed to explore some of the key nutrition policy areas where governments will have to make clear decisions, in the context of any meaningful convention. Accordingly, the objectives for this workshop are:

- to identify some policy areas in need of government-level clear decisions on future action to improve the public's nutritional health;
- to explore in depth the science which must provide the basis for logical determination of future policy in these areas;
- to identify appropriate policy directions in these areas;
- to discuss how best consistency in public health nutrition policy might be achieved.

Only a limited number of policy areas can be considered within the timescale of a 90 minute workshop, and accordingly three have been selected for discussion: trans and saturated fats, sugar, and salt. After an initial setting of the scene by Martin O'Flaherty, there will follow brief presentations, by experts in the relevant fields, of both the current state of science in relation to each of these nutritional issues, and of the implications of this for public policy designed to improve nutritional health (Torben Jørgensen, on fats, Eva Martos on sugar, and Sirpa Sarlio-Lahteenkorva on salt). Following these presentations there will be a final one on 'Achieving consistency in public health nutrition policy'; this presentation (by Tim Lang), indicating some necessary directions for future policy development, will lead directly on to a discussion with encouragement for the maximum of audience participation.

Key messages

- The science is clear on which to base policy decisions to improve nutritional health
- We can learn from certain countries where governments have implemented effective nutrition policies

Setting the scene: barriers and facilitators of healthy nutrition policy

Martin O'Flaherty

M O'Flaherty
University of Liverpool, Liverpool, UK
Contact: moflaher@liverpool.ac.uk

Problem

The lack of any international consensus on how best to promote the consumption of healthy nutrition.

Description of the problem

Public health can celebrate two centuries of successfully overcoming barriers to implement effective policies for safe drinking water, clear air, safe motorcars, seatbelts, immunisations, smoke-free public spaces and minimal food contamination.

However, today high middle and low income countries all now face major challenges from an NCD epidemic, particularly reflecting poor diet (also tobacco, alcohol and physical inactivity). Globally we have an increasing number of success stories around public health. Historical exemplars such as Finland and Denmark are now being followed by countries such as South Africa & Argentina (salt), Mexico & Hungary (sugar), Iceland and the USA (transfats). The majority of these successes represent the effective plod down a long policy path summarised by the mnemonic SUPPORT: scientific evidence followed by Professional Understanding, Public support, Overcoming Opposition from vested Interests Regulation and Taxation.

Policy development needed

These early successes mirror the experience of tobacco control, which was built on the '3As' model: addressing Affordability, Availability and Acceptability. This model has worked well when applied to sugar and saturated fat. What we now need is to match the other great achievement of FCTC with an similar international convention on healthy nutrition.

Lessons learned

We must work to achieve the wide international consensus needed to achieve such a convention on healthy nutrition.

Update on trans and saturated fats; what might taxes and regulations have to offer?

Torben Jørgensen

T Jørgensen
Research Centre for Prevention and Health, Copenhagen, Denmark
Contact: torben.joergensen@regionh.dk

Problem

Are policy interventions a useful tool in dietary modification?

Description of the problem

There have been various attempts to regulate intake of fat by policy interventions as taxation (saturated fat) or regulation (trans-fat) The few existing studies vary from experimental settings in smaller groups, through assessment of fat intake during a fat tax, to modelling studies simulating the effect of various levels of taxation. The interventional studies all show only a small effect on intake, and simulation studies indicate that a substantial taxation (more than 20 %) is needed. A problem with taxation of one food item is the possibility of substitution replacement, which may include other unhealthy products.

Possible policy changes

Maybe a saturated fat tax should not stand alone, but should be combined with subsidies on healthy foods, regulation of advertisements and focussed information. Food industries oppose taxation using common industrial tactics including lobbying and legal action. Regulation of trans-fat is a question of availability; when trans-fat are removed from food, intake will automatically drop, and this has been documented. A few countries have introduced regulation of trans-fat, but so far no objective assessment of the effects on occurrence of cardiovascular diseases (CVD) have been made.

Lessons learned

We need to assess any effects the regulation of trans-fat has had on CVD mortality, and we need more comprehensive implementation studies to assess the effects of various policy interventions on intake of saturated fat.

The Hungarian policies to reduce population sugar intake

Éva Martos

É Martos
National Institute of Pharmacy and Nutrition, Directorate of National Institute for Food and Nutrition Science, Budapest, Hungary
Contact: martos.eva@oeti.antsz.hu

Problem

The prevalence of obesity is increasing in European adults and children, creating substantial health and economic burdens, in spite of various policy approaches targeting the problem.

Description of the problem

One of the most important risk factors obesity-associated is excessive intake of sugar, particularly in sugar-sweetened beverages and sweets. The latest Hungarian Diet and Nutritional Status Survey shows that two-thirds of the adult population is overweight or obese. The mean consumption of sugar-sweetened beverages is 0.3 L/day, in young men reaching 7 % of the daily total energy intake. Almost half of 7-year-old children consume sugar-sweetened beverages daily, and overweight prevalence is 20% and 25% in these boys and girls respectively.

Policy development

Governmental legislative initiatives have been introduced to tackle the situation. In 2011 the Public Health Product Tax (PHPT) Act was applied to non-staple foods including sugar-sweetened beverages and pre-packaged sweets. Beyond encouraging reformulation and generating the expected revenue, 26% of consumers decreased their intake of these products. A separate decree bans sale of the products subject to PHPT in schools. In 2015 regulation of healthy public catering was established, with provisions aiming to reduce sugar intake, by prohibiting sugar-sweetened soft drinks and setting a maximum sugar content.

Lessons learned

Diverse policy measures are needed in order to have overall population impact, while respecting the needs of vulnerable groups. To assess both the scale of the problem and impact of legislative measures, surveys and monitoring are essential.

Reducing salt intake requires national and international efforts

Sirpa Sarlio-Lahteenkorva

S Sarlio-Lahteenkorva
Ministry of Health, Helsinki, Finland
Contact: sirpa.sarlio-lahteenkorva@stm.fi

Problem

High dietary salt intake is a risk factor for conditions such as high blood pressure and stroke. WHO, UN and EU have initiated action to reduce salt intake.

Description of the problem

Currently, intake of salt is above recommendations in all European countries where data is available, and about a quarter of Europe's population suffers from high blood pressure. About 70–75% of salt intake comes in processed foods, so involving industry, catering and other stakeholders is crucial. Finland had in the 1970's one of the highest cardiovascular death rates in the world, and was among first countries to decrease salt intake with multi-sectoral policy actions. Various approaches such as dietary guidelines and standards, cooperation with industry, health education at schools, national legislation on salt labelling, and warning labels for highly salted foods, have be utilised with regular monitoring of salt intake and health outcomes.

Results

Between 1981 and 2007 the salt intake in Finland reduced gradually in men from 13 g to 9 g and in women from 11 g to 7 g, and prevalence of high blood pressure dropped significantly. This favourable development has now ceased, with even a slight increase in salt intake reported in a 2012 survey Increasing cross-border trade of salt-enriched foods, harmonisation of legislation in the EU, and diversification of messages relating to healthy diets, explain this untoward development - despite recent global and European initiatives to reduce salt intake.

Lessons learned

Reducing salt intake and content in foods requires integrated multi-sectoral action that includes global trade and marketing. National efforts have only limited value if not supported by global action.

Achieving consistency in public health nutrition policy

Tim Lang

T Lang
Centre for Food Policy, Department of Sociology, School of Arts & Social Sciences, City University London, London, UK
Contact: t.lang@city.ac.uk

Problem

Dietary guidelines ignore food's environmental impact. Efforts to create sustainable dietary guidelines are fiercely resisted by commercial and other interests. This symbolises the fragmented state of nutrition science and the weak impact of public health nutrition evidence on EU food policy

Description of the problem

The evidence of diet's role and impact in NCDs and on the environment has strengthened over 40 years yet national and EU dietary guidelines ignore food's environmental impacts. EU official food policy is dominated by the legacy of the 1930s and 40 s, but the food economy has changed radically since then. Economic power shifted off the land. An infrastructure now exists which spreads ultra-processed foods: marketing, motorways, and the pursuit of cheap food in the name of consumer choice. Consumers, policy-makers and progressive industry have no guidance as to what a good diet is. Sustainable dietary guidelines are needed to provide broad 'direction of travel' for the 21st century European food system. Attempts to do this have generally met fierce commercial opposition.

Possible policy changes

(1) new National and EU-wide dietary guidelines; (2) modelling of what a good food system and its infrastructure could be; (3) organisational coalitions which champion 'ecological public health nutrition' to the public and monitor efforts in this direction.

Lessons learned

Dietary guidelines are useful benchmarks to evaluate reality and provide public focus. Given the immense environmental and health burdens from food, the public health movement should press Europe's food policy to take a more sustainable direction.

7.M. Regular workshop: Care and treatment for families with multiple problems: messages from Europe

Organised by: University Medical Center Groningen
Contact: k.e.evenboer@umcg.nl

Chair: Danielle Jansen

Parents and children of so called 'multiproblem families' (MPFs) often experience difficulties in various areas of life like substance abuse, participation, parenting problems, psychosocial problems including social determinants of health and the quality of life. Therefore, it is of great importance to provide care and treatment to MPFs focusing on these various areas of life to address these problems and make them more manageable on the shorter, but also on the longer term. Which types of care and treatment seem to work for these families? And why do these types of care work? What are (potentially) effective elements of interventions for MPFS?

The aim of this workshop is to pay attention to the various types research on care and treatment for MPFs, focusing on:

- Early childhood networks: these networks seem to play an important role in providing support to families facing different and mostly multiple burden/needs.
- A modular prevention program: substance-specific group interventions for children from substance-abusing families seem to lead to more positive effects than substance-unspecific work.
- What works for multiproblem families (MPFs): giving a systematic overview of the literature concerning evidence of the effectiveness of interventions used for MPFs.
- The evaluation of an organizational model: evaluating the effectiveness of an organizational model to support MPFs in the Netherlands.

The topics discussed within this workshop complement each other, which makes it possible to exchanged knowledge between researchers, practitioners, policy makers and educationalists of various countries concerning the support for MPFs. In addition, we could learn from each other when it comes to optimizing the care for these families in various areas of life. The participants will be asked to actively take part in the discussions of the four presentations.

Key message

- For improving the care offered to families and children with severe and multiple problems it is important to combine the knowledge gathered within different countries

Early Childhood Networks - Strategy and implementation in Austria

Sabine Haas or Marion Weigl

S Haas, M Weigl, P Winkler, S Sagerschnig, C Knaller, G Gruber
Gesundheit Österreich, Vienna, Austria
Contact: Sabine.haas@goeg.at, marion.weigl@goeg.at

Sufficient evidence on the effectiveness of early childhood interventions/networks and the influence of social determinants on health is available and shows the potential of such interventions/networks to improve health and to reduce health inequity - not only in young age but also throughout the life course. Early childhood networks play an important role in addressing systematically and providing support to families with pregnant women or young children facing different and mostly multiple burdens/needs.

In order to prepare and support the implementation in Austria, in 2011 to 2014 a research project was carried out with a whole range of activities and methods, i.e.:

- assessment of availability and structure of early childhood interventions and networks in all nine Austrian provinces (online survey, interviews, focus groups, stakeholder workshops),
- analysis of existing scientific evidence as well as experience from practice with early childhood networks,
- agenda setting and knowledge transfer in order to raise awareness and knowledge among stakeholders (different sectors and professions) on federal and provincial level.

The assessment showed that a lot of interventions for early years are available but mostly not systematically targeting resp. supporting families in need. In addition, cooperation and networking between different services is lacking. The research project resulted in the elaboration of a model for early childhood interventions in Austria as well a guideline for implementation.

These activities led to a broad commitment to early childhood networks throughout Austria, across different professions and sectors, as well as the inclusion of this topic in several policy documents and strategies. From 2015 on, early childhood networks will be build up resp. extended in all nine Austrian provinces supported by a national centre for early childhood interventions.

Project Trampoline - Design and Evaluation of a Modular Prevention Program for Children from Substance-Abusing Families

Michael Klein

M Klein, D Moesgen
German Institute for Addiction and Prevention Studies, Catholic University of Applied Sciences, Cologne, Germany
Contact: mikle@katho-nrw.de

Background

Children from substance-abusing families face a high risk for developing psychological or substance related disorders in adolescence or early adulthood. However, few prevention programs aimed at reducing psychological stress for these children exist in Germany, and, to date, none have undergone scientific evaluation. The aim of our project is to bridge this gap by developing and evaluating a modular group program for 8- to 12-year-old children from substance-abusing families. The program is tailored to their specific needs and resources. It consists of 9 modules and an integrated parent module.

Methods

The multicenter study with a pre-post-follow-up design was carried out at 27 out-patient counseling centers across Germany delivering the manualized intervention to groups of children. A prospective, randomized-controlled trial of the intervention was conducted. In total, N = 218 children with at least one drug or alcohol abusing parent were recruited. They were divided into two groups in order to compare a) an intervention group (Trampoline) with b) a substance-unspecific play group (control). Standardized measures were used for both participating children and parents in order to report on sociodemographic data, current parental substance use, stress level and coping strategies, family relationship quality, self-worth, self-efficacy and satisfaction with the intervention.

Results

Both groups benefitted from this project in various areas. However, the Trampoline-group profited more than the control group with regard to substance-related concepts such as knowledge about alcohol and drugs and psychological strain related to the parent's addiction.

Conclusions

Trampoline improves substance-related knowledge and reduces psychological strain in affected children sustainably and may therefore be considered as an effective, evidence-based, standardized group intervention for the high-risk group of children from substance-abusing families.

Evaluation of an organizational model to support multiproblem families in the Netherlands - effects on (social) participation and family functioning

Els Evenboer

KE Evenboer, DEMC Jansen, SA Reijneveld
Department of Health Sciences, University Medical Centre Groningen, Groningen, The Netherlands
Contact: k.e.evenboer@umcg.nl

Multiproblem families (MPFs) provide a huge public health challenge because of socio-economic deprivation, psychosocial problems, parenting problems, domestic violence and rule-breaking behaviours. Therefore, there is a strong need for evidence-based approaches to successfully manage the difficulties of MPFs in various areas of life. The aim of the study is to evaluate the effectiveness of an organizational model to support MPFs in the Netherlands on the (social) participation, self-reliance and quality of life of MPFs. The model is based on the Flexible Assertive Community Treatment (FACT) and the outcomes of a literature study concerning effective elements of interventions for MPFs. We assess the effectiveness of this model using a cluster-randomized stepped-wedge design, comparing FACT with Care As Usual (CAU) among 200 MPFs in six municipalities. Primary outcomes are (social) participation and family functioning. Secondary outcomes are psychosocial problems, care use, health literacy, self-reliance, quality of life and the satisfaction with the organizational model.

In this workshop attention will be paid to the contents of the organizational model. FACT is a well-defined service delivery model for care and treatment of the most severely mentally ill people (SMI) in the community. In this study the FACT method will be evaluated regarding its effectiveness for coordinating multidisciplinary care and treatment for MPFs within the Netherlands.

During this study we focus on factors that hamper or promote the usability of the organizational model in daily practice of care to MPFs. In addition, we will collect data on potentially effective components of the model. Results concerning the effectiveness of the working method are not available yet, because the data collection started just recently.

What Works for Multiproblem families? Availability of evidence-based interventions in the Netherlands

Danielle Jansen

DEMC Jansen, M Klaassen-Vermaat, KE Evenboer, SA Reijneveld[4]
All authors: Department of Health Sciences, University Medical Centre Groningen, Groningen, The Netherlands
Contact: d.e.m.c.jansen@umcg.nl

Background

Multiproblem Families (MPFs) experience severe problems in multiple areas of life, such as psychosocial problems, parenting problems and socio-economic deprivations. Care and treatment are highly needed for these families, but evidence is scarce on the effectiveness of interventions for MPFs. Therefore, the aim of this study was to conduct a systematic review on the effectiveness of interventions for MPFs in the Netherlands.

Methods

We searched the Database Effective Interventions (DEI) of the Netherlands Youth Institute as starting point for the systematic review. This database includes interventions aimed at the prevention and/or treatment of problems in child development. These comprised 30 interventions targeted on MPFs. All these interventions were at least theoretically grounded. Next, we systematically searched for studies with a randomized controlled trial, pre-posttest or quasi-experimental design published between 2005–2015. We used the databases PsychInfo, SocIndex, Medline, Eric, PiCarta and Web of Science. The search terms were related to the names of the interventions included in the DEI (i.e. Families First, Triple P or Signs of Safety).

Results

In total, 342 studies were identified for further assessment. The initial screening (based on reading titles and abstracts) resulted in 36 studies. After reading full-texts, 17 studies were included which related to 10 interventions. The results of the review confirm that evidence is very scarce concerning the effectiveness of interventions for MPFs. During this workshop we will discuss the ideas for further assessment of the effectiveness of these potentially effective interventions. How should we proceed in future research?

7.N. Oral presentations: Childhood consumption

Shaping the school environment to promote healthy diet and lifestyle habits

Stefan Storcksdieck

S Storcksdieck genannt Bonsmann, T Mouratidou, F Mussio, J Wollgast, T Ning Mak, M Neson, J Breda
European Commission
Contact: Stefan.Storcksdieck@ec.europa.eu

Child health is a vital public health concern. Schools are a protected environment where children, their families, and school staff including caterers can be reached with key messages about healthy diets and lifestyles. Accordingly, school-based interventions aim to specifically improve children's behaviour e.g. as concerns fruit & vegetable intake, water consumption, or physical activity. School food policies can help set the scene, but proper monitoring and evaluation is needed to assess their impact. The JRC is interested in understanding success factors that can help optimise the school environment and related policies for promoting healthier behaviours. As a first step, we have mapped school food policies in the European Union (EU) and described them thoroughly and systematically. Moreover, we brought together experts to discuss national school food policies across Europe, identifying best practices and the potential to explore the policies or the schools further. The mapping revealed that all 30 countries considered have a school food policy in place; half of them being voluntary and the other half mandatory. Standards and guidelines provided commonly offer food-based instructions, but they also consider the dining environment, vending services, catering practices, and staff training among others. Crucial success factors were the building of partnerships, local engagement (focus on head teachers), and increasing the availability of healthier options. At the same time, further work is needed on ways to communicate better between all stakeholders, improve the image of school food, and target resources effectively. Knowledge gaps include the influence of diet on school attainment and the role of portion sizes for energy intake and weight management. We will be assessing concrete school based interventions to indeed support European policy makers in their efforts to further improve the school environment and thus promote healthy behaviours in children and beyond, in line with the EU Action Plan on Childhood Obesity 2014–2020.

Key messages

- School food policies exist throughout the EU 28, Norway and Switzerland
- Data on evaluation of these policies can aid to continuous improvement of the school food policies as means to promote better nutrition, better health and better education

The association of vitamin D with allergy and lung function in asthmatic and healthy adolescents

Ourania Kolokotroni

O Kolokotroni[1,2,3], P Yiallouros[1], A Papadopoulou[4], C Kouta, V Raftopoulos, P Nicolaidou[4], N Middleton[2]
[1]Cyprus International Institute for Environmental and Public Health in association with the Harvard School Public Health, School of Health Sciences, Cyprus University of Technology, Limassol, Cyprus
[2]Department of Nursing, School of Health Sciences, Cyprus University of Technology, Limassol,Cyprus
[3]University of Nicosia Medical School, Nicosia, Cyprus
[4]Third Department of Pediatrics, Medical School, General Hospital Attikon, University of Athens, Athens, Greece
Contact: kolokotroni.o@unic.ac.cy

Background

Hypovitaminosis D is becoming an important public health problem everywhere, even in sunny parts of Europe. The role of vitamin D in skeletal disease is well-known but evidence suggests it might also be implicated in asthma and allergies.

Objectives: To investigate the association of Vitamin D with allergic sensitization and lung function in asthmatic and non-asthmatic individuals.

Methods

All reporting current wheezing on the ISAAC questionnaire among 5384 16-18 year old Cypriot adolescents (65% response) were grouped into active asthmatics (CWA), if also reported asthma diagnosis (N = 69), and current wheezers only (CWO, N = 121). Controls were sampled amongst Never Wheezers/ Never Asthmatics (NWNA, N = 671, 75% response). Measures included serum 25(OH)D, lung function using spirometry (FEV1 and FVC) and skin prick testing to 8 aeroallergens. The association of vitamin D with study outcomes in each group was investigated in regression models.

Results

Vitamin D deficiency (< 20 ng/ml) and insufficiency (<30 ng/ml) were associated with allergic sensitization among wheezers. Those with vitamin D insufficiency were almost 4-times more likely to be sensitized to at least one allergen (OR 3.83, 95% CI = 1.23-11.96) after adjusting for seasonality and family history of allergy. Prevalence of polysensitization (positive >3 allergens) appeared 3–4 times higher among wheezers and NWNA with vitamin D insufficiency, even though associations were short of statistical significance due to the small number of participants in the vitamin D sufficiency range (only one in 10). In contrast, only a weak correlation was observed between Vitamin D and FVC in CWA (>0.27, p = 0.09) while no association was observed with lung function measures in the other groups.

Conclusions

The results suggest a possible link between vitamin D and allergic sensitization against a background of mixed findings of mainly cross-sectional and only two prospective studies in the literature.

Key messages

- Vitamin D deficiency and insufficiency is high among Cypriot asthmatic and non-asthmatic adolescents
- Compromised vitamin D is associated with allergic sensitization, at least among asthmatics, but not with lung function measures

Driving behaviours near schools and child pedestrian-motor vehicle collisions in Toronto, Canada

Linda Rothman

L Rothman[1,2], A Howard[2], R Buliung[3], C Macarthur[2], A Macpherson[1]
[1]Faculty of Health-School of Kinesiology & Health Science, York University, Toronto, Canada
[2]Child Health Evaluative Sciences, The Hospital for Sick Children, Toronto, Canada
[3]Department of Geography, University of Toronto, Mississauga, Canada
Contact: linda.rothman@sickkids.ca

Background

The burden of child pedestrian motor vehicle collisions remains high world-wide. Most of children's exposure to traffic is while walking to school with active school transportation being promoted as an important source of physical activity. Although dangerous driving behaviours have been reported extensively near schools, their relationship with child pedestrian-motor vehicle collisions (PMVC) has not been defined. The purpose of the study was to examine the correlation between dangerous driving behaviours and historical child PMVC near elementary schools in Toronto, Canada.

Methods

Police-reported child PMVC (ages 4–12) from 2000–2011 during school travel times were mapped within 200 m of 118 schools. Observers measured dangerous driving and numbers of children walking to school during morning drop-off on a single day in 2011. A composite score of school social disadvantage was obtained from the school board. Built environment features were mapped and included as covariates. Multivariate Poisson regression was used to model the rates of PMVCs and dangerous driving, adjusted for the built environment and social disadvantage.

Results

There were 45 child PMVCs with 29 (64%) sustaining minor injuries resulting in emergency department visits. Dangerous driving behaviours were observed in 104 schools (88%). Each additional dangerous driving behaviour was associated with a 45% increase in collision rates (IRR = 1.45, 95% CI 1.02, 2.07). Higher speed roads (IRR = 1.27, 95% CI 1.13, 1.44) and social disadvantage (IRR = 2.99, 95% CI 1.03, 8.68) were associated with higher collision rates.

Conclusions

Dangerous driving was correlated with historical non-fatal child PMVC rates near schools with the most common behaviours related to unsafe parking and drop-offs. The results have important public health implications and have had impacts on City of Toronto and school board policies related to safe walking to school

Key messages

- Dangerous driving behaviours were correlated with historical child pedestrian collisions near schools during school travel times controlling for higher speed roads and school social disadvantage
- Targeted multifaceted interventions must be developed to address dangerous driving behaviours to reduce child pedestrian collisions and promote safe walking to school

Reducing the consumption of energy drinks: what do young adolescents in Rotterdam indicate?

Inge Moorman-Wildevuur

I Moorman-Wildevuur[1], *PW Moorman*[2], *H Raat*[3]
[1]Centre of Youth Health Care, CJG Rijnmond, Rotterdam, The Netherlands
[2]Department of Medical Informatics, Erasmus MC, Rotterdam, The Netherlands
[3]Department of Public Health, Erasmus MC, Rotterdam, The Netherlands
Contact: i.moorman@cjgrijnmond.nl

Background

The increasing use of energy drinks (EDs) among children gives rise to health concerns. Which policy measures, except for prohibition, can reduce the consumption of these EDs?

Methods

Based on literature and a qualitative prestudy, we identified 5 factors that might influence the consumption of EDs: price, appearance, taste, stimulating effects and health adverse effects. We conducted a survey on all secondary schools in the Delfshaven area in Rotterdam amongst third grade scholars (14-15 years of age) from October 2014-March 2015.

In the questionnaire we asked, besides baseline characteristics and current ED consumption, to what extent the children thought they would reduce their consumption of EDs if the factors were changed. For example, one question was: 'The cheapest EDs costs about 35 cents. How many would you drink if they were to cost 1 euro?' Possible answers were 'the same/less/much less/(almost) none'.

When at least 50% of regular consumers, i.e. those who drink several EDs per week or more, answered they would change their consumption to a lower extent, the method was assumed to be possibly effective.

Results

Out of 572 responders, 108 (19%) were regular consumers of which 58% were boys and 51% paid for the EDs themselves. Two factors may be effective: 80% (95% CI = 72-87%) would reduce their consumption if the price was to be raised, and 70% (95% CI = 62-79%) if EDs had adverse health effects. Regular consumers indicated that they would mostly be influenced if doctors, sport clubs or family would tell them that it is not good to drink EDs: 59% (95% CI = 50-69%) would drink less.

Conclusions

To reduce consumption of EDs among young adolescents, raising the price and giving information about the adverse health effects could be effective strategies. The Youth Health Care workers can play a role in informing children, parents and sport clubs about the adverse health effects of EDs.

Key messages

- The increasing use of energy drinks among children gives rise to health concerns. Raising the price and information about the adverse health effects may be effective strategies to decrease consumption
- Consumption of energy drinks among young adolescents can be reduced by raising the price. Education of adverse health effects can also be effective, in which the Youth Health Care could play a role

A systematic review of the effects associated with children and young people's use of energy drinks

Shelina Visram

S Visram[1], *M Cheetham*[2], *D Riby*[3], *AA Lake*[1], *SJ Crossley*[1]
[1]Centre for Public Policy and Health, Durham University, Stockton-on-Tees, UK
[2]Health and Social Care Institute, Teesside University, Middlesbrough, UK
[3]Department of Psychology, Durham University, Durham, UK
Contact: shelina.visram@durham.ac.uk

Background

Growing numbers of children and young people report regular consumption of energy drinks (such as Red Bull), which typically contain high levels of sugar and caffeine in combination with other stimulants. There is emerging evidence of harmful physiological and psychological effects in adults, but little is known about the risks to children. This study set out to examine patterns of energy drink consumption by under 18 s and any evidence of adverse effects in terms of health and wellbeing.

Methods

A systematic review was conducted. Data sources included nine bibliographic databases, reference lists of relevant studies, and searches of the internet. Two independent reviewers assessed the methodological quality of the studies and abstracted data, which were then descriptively summarized in a narrative synthesis.

Results

A total of 262 studies were located, with 38 meeting the inclusion criteria - 31 quantitative, five qualitative, and two literature reviews. The majority involved subjects aged 11–18 years. Studies were largely conducted in North America or Europe, yet all of the qualitative studies were from Australia or New Zealand. None were from the UK. Two-thirds were cross-sectional surveys exploring i) consumption patterns, attitudes and reasons for energy drink use, or ii) associations with health-related outcomes, including susceptibility to smoking, sleep problems, and physical health complaints such as headaches or stomach aches. A number of key themes emerged from the qualitative literature: the importance of branding and advertising; taste as a motivating factor; peer influence; and perceived (negative and positive) physiological effects.

Conclusions

Energy drinks have no known therapeutic benefit and evidence suggests that they may put some children at risk of adverse health effects. However, taste and youth-aimed marketing combine to ensure their popularity with young consumers. More research is needed to explore the short- and long-term effects of these drinks.

Key messages

- Evidence suggests that consumption of commercial energy drinks may put some children at risk of adverse health effects
- More research is needed to explore the short- and long-term effects of energy drinks on young people

Pocket money and smoking behaviors among adolescents: evidence from a study on 6 European cities

Julian Perelman

J Perelman[1], J Alves[1], T Pfoertner[2], I Moor[2], B Federico[3], M Kuipers[4], M Richte[2], A Rimpela[5], AE Kunst[4], V Lorant[6]
[1]Escola Nacional de Saúde Pública, Universidade Nova de Lisboa, Lisbon, Portugal
[2]Institute of Medical Sociology, Martin-Luther University of Halle, Halle, Germany
[3]Department of Human Sciences, Society and Health, University of Cassino and Southern Lazio, Cassino, Italy
[4]Department of Public Health, Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands
[5]School of Health Sciences, University of Tampere, Tampere, Finland
[6]Institute of Health and Society, Université Catholique de Louvain, Louvain-la-Neuve, Belgium
Contact: jperelman@ensp.unl.pt

Background

High prices are considered a powerful barrier against smoking among adolescents. Though, the economic constraint may be weak if pocket money represents a substantial revenue. This study investigates the association between pocket money and smoking habits among adolescents.

Methods

We used the data from the SILNE project, which surveyed adolescents aged 14–17 years old at 50 schools from 6 European cities in 2013 ($n = 10{,}794$). We modeled smoking behaviors (regular smoking, nicotine dependence, smoking intensity, and likelihood of buying cigarettes) as a function of pocket money, adjusting for age, sex, and peers' and parents' smoking habits, using logistic and linear regressions. In order to examine the causality, we (i) adjusted for the socioeconomic (SE) background, to discard that pocket money is a mere proxy of SE circumstances; (ii) adjusted for the age of smoking initiation, to discard reverse causation; (iii) tested the model among the different age groups and cities.

Results

Adolescents in the highest pocket money quintile were more likely to be regular smokers than those in the lowest quintile, regardless of SE factors and age at initiation ($\text{OR} = 3.1$; $p < 0.01$). This association was significant at all ages from 14 to 17, and for the 6 cities. Regular smokers in the highest pocket money quintile smoked on average more 4.2 cigarettes per day ($p < 0.01$), had a significantly higher level of dependence to nicotine ($b = 1.8$, $p < 0.01$), and were more likely to buy their cigarettes ($\text{OR} = 4.3$; $p < 0.01$).

Conclusion

Pocket money is an independent and consistent predictor of smoking among adolescents. It determines the act of buying cigarettes, the level of addiction, and the intensity of smoking. The effectiveness of high prices to limit smoking among adolescents may be counterbalanced by access to pocket money, reinforcing the need of alternative strategies grounded on bans.

Key messages

- Pocket money is an independent and consistent predictor of smoking among adolescents. It determines the act of buying cigarettes, the level of addiction, and the intensity of smoking
- The effectiveness of high prices to limit smoking among adolescents may be counterbalanced by access to pocket money, reinforcing the need of alternative strategies grounded on bans

7.O. Oral presentations: Health promotion and inequalities

Preschool children's dietary patterns and later adiposity

Catarina Durão

C Durão[1], A Oliveira[1,2], P Moreira[3,1], M Severo[1,2], A Guerra[4], H Barros[1,2], C Lopes[1,2]
[1]EPIUnit - Institute of Public Health, University of Porto, Portugal
[2]Department of Clinical Epidemiology, Predictive Medicine and Public Health, University of Porto Medical School, Portugal
[3]Faculty of Nutrition and Food Sciences, University of Porto, Portugal
[4]Department of Pediatrics, University of Porto Medical School, Portugal
Contact: kdurao@netcabo.pt

Background

Evidence on the association of preschool children's dietary patterns with later adiposity is limited. Our aim was to evaluate the association of 4-year-old children's dietary patterns with adiposity at 7 years of age.

Methods

We evaluated 3473 children enrolled in the Portuguese population-based birth cohort (Generation XXI) evaluated at both 4 and 7 years. Children's dietary intake was assessed by food frequency questionnaire. Children's anthropometric measures and body-composition (bioelectrical impedance) were assessed according to standard procedures. Waist-to-height ratio (W/Ht) was calculated and Body Mass Index standard deviation scores (BMI z-scores) were computed according to the World Health Organization. Free-fat mass was obtained from Schaeffer's equation and used to calculate fat mass percent (FM%) and fat mass index (FMI). Children's dietary patterns were identified by latent class analysis models. Regression coefficients and 95% confidence intervals (>95%CI) were estimated by linear regression models adjusted for maternal (education, BMI) and child's characteristics (screen time, exercise, and adiposity at 4 years).

Results

Three dietary patterns were identified at 4 years and predicted at 7 years: high in energy-dense micronutrient-poor foods and beverages (EDF); low in foods typically consumed at main meals, intermediate in those consumed as snacks (Snacking); higher in healthy foods, lower in unhealthy ones (Healthier, reference). A significant sex interaction was found on BMI z-score (girls x EDF at 4 years, $p = 0.047$). In girls, the EDF pattern at 4 years was significantly positively associated with all adiposity measures at 7 years (BMI z-score, ≥ 0.079, 95%CI: 0.014-0.144; FM%, ≥ 0.787, 95%CI: 0.003-1.570; FMI, ≥ 0.215, 95%CI: 0.050-0.380; W/Ht, ≥ 0.006, 95%CI: 0.003-0.010), while in boys a significant positive association was only observed between this dietary pattern and W/Ht ratio (≥ 0.004, 95%CI: 0.000-0.007).

Conclusions

An early EDF dietary pattern practiced at age 4 years is associated with higher total and central adiposity in girls, and with higher W/Ht ratio in boys at 7 years of age. Interventions should target avoidance of early consumption of EDF.

Funding: Calouste Gulbenkian Foundation; Compete-FEDER; Foundation for Science and Technology (PTDC/SAU-EPI/121532/2010; SFRH/BD/81788/2011)

Key messages

- Interventions to prevent childhood obesity should consider the reduction of energy-dense micronutrient-poor foods and beverages and should start as early as possible
- Although a significant sex interaction on BMI was observed, it seems to be explained by sexual dimorphism in body fat distribution. Hence, interventions should target both girls and boys

Participation and equality in school health promotion-challenges in a secondary school project

Katja Gillander Gådin

K Gillander Gådin, M Warne
Departement of Health Sciences, Mid Sweden University, Sweden
Contact: katja.gillander-gadin@miun.se

Background

Promoting mental health among children and adolescents is one of society's greatest challenges as mental health problems is both common and an increasing problem among young people, particularly among girls. There are many explanatory factors to this deterioration, but one of the important arenas for health promotion is school. Health promoting schools are based on fundamental principles such as empowerment, participation, equality and democracy, but not all students have access to these principles to the same degree. The purpose with this study was to understand and identify challenges that was met in a school health promotion project in a secondary school in Sweden, with a focus on participation and gender equality.

Methods

An 18 month long project was conducted between 2009 and 2011 together with students in grade 6–8 (about 250 students), school personnel and parents. Transcriptions from six focus groups with pupils and two focus groups with teachers were used as data, together with memos and observations at the school and analyzed with content analysis.

Results

Preliminary results show that there is a discrepancy between the gender-related problems students talked about in the interviews and the teachers' commitment to gender issues. There was also a large discrepancy between students' interest to engage in their work environment and the organization of the school for student participation.

Conclusion

A conclusion is that a school that wants to promote the health of their students must understand the relationships between school organization and students' opportunities for health, and that the resistance to work with gender and power relations between different groups of students needs attention.

Key messages

- A school that wants to promote the health of their students must understand the relationships between school organization and students' opportunities for health
- It is also important that the resistance to work with gender and power relations between different groups of students get more attention

Age gradient of smoking prevalence in Russia

Diana Denisova

D Denisova, S Malyutina, V Kozik
Federal State Budgetary Scientific Institution 'Institute of Internal and Preventive medicine', Novosibirsk, Russia
Contact: denisovadiana@gmail.com

Mortality from smoking-attributable diseases in Russia is among the highest in the world. Current trends of smoking in Russian population indicate on decreasing among men and rising in women. Aim of the study was to evaluate the smoking prevalence in different age groups in Russia.

Methods

Three cross-sectional studies of representative samples aged 14–17 (647), 25–45 (810) and 50–70 (973) years old were conducted using standardized epidemiological methods in Novosibirsk in 2014. Total sample was 2430 persons (43% males). Questionnaire about smoking status, self-related health, education, marital status was used. Blood pressure, height, weight, total cholesterol and HDL-C were measured.

Results

The age standardized prevalence of smoking in the older age group (50-70 years) was 48% among men and 8% among women. The prevalence of smoking was almost stable among men in comparison with previous data from Russia for the similar age (Project MONICA, 1995): 43% and 48%. The prevalence of smoking in the young group (25-45 years) was 24% among women and twice as much among men - 46%. The prevalence of smoking declined among young men in comparison with previous for the similar age (Project MONICA, 1995): 67% and 46%. Among those with higher education the percentage of smokers was 1.7 times lower than among people with secondary education ($P < 0{,}01$). Smokers experienced health problems associated with smoking (atherogenic lipid profile, higher blood pressure and blood glucose). The prevalence of smoking among adolescents aged 14–17 in 2014 was 13% for boys and 8% for girls ($P < 0{,}05$). A comparison of the 2014 data with previous studies conducted among adolescents in Novosibirsk since 1989 showed significant decline in boys: from 45% in 1989 to 13% in 2014, i.e. 3.5 times. Among girls in the period from 1989 to 2003 marked increase in the frequency of smoking from 19% to 27%, but in the last 10 years there was a decrease to 8%.Thus, the gender ratio of smoking in the old age group was 6, in the young age group - 2, in adolescents - 1.5.

Conclusions

Overall smoking prevalence declined in young men and adolescents and raised in young women. Prevalence of adolescent smoking significantly decreased during the last 25 years. The study was partly supported by the Russian Scientific Foundation (#14-45-00030).

Key messages

- Overall smoking prevalence declined in young men and adolescents and increased in young women
- More long term monitoring of smoking patterns in Russia, especially among women, using sufficiently large surveys, is required

Planning a health promotion intervention for World Food Programme employees in developing countries

Francesco Di Nardo

Y Cao[1], F Di Nardo[2], J Goldoni Laestadius[1], S Arena[3], G Denton[1], E Azzolini[2], M Raponi[2], G Furia[2], E Lovato[2], A Mancuso[2], D Basso[2], M Marino[2], R Falvo[2], I Iavicoli[4], N Magnavita[4], EA Lops[4], S Capitanelli[4], B Piccoli[4], S Bruno[2], E De Vito[5], W Ricciardi[2]
[1]Medical Service, World Food Programme, Roma, Italy
[2]Institute of Public Health, Section of Hygiene, Università Cattolica del Sacro Cuore, Roma, Italy
[3]The UN Refugee Agency (UNHCR), Geneva, Switzerland
[4]Institute of Public Health, Section of Occupational Medicine, Università Cattolica del Sacro Cuore, Roma, Italy
[5]Dipartimento di Scienze Motorie e della Salute, Università degli Studi di Cassino, Cassino, Italy
Contact: francesco_pope84@hotmail.com

Humanitarian workers are exposed to relevant and specific health risks. The World Food Programme is committed to promoting and maintaining the health of all employees. In 2013 it commissioned a pilot health promotion intervention involving Sudan, South Sudan, Ethiopia, Afghanistan, Pakistan and Haiti. The aim was to develop an effective intervention to be extended to other countries.

Data from incident reports and a survey based on validated questionnaires were used to assess the health needs and priorities of the employees. A benchmark analysis with data from other UN Agencies allowed to check for consistency. After a review of the scientific literature on health promotion for humanitarian workers and a socio-cultural/geopolitical background analysis, site visits of the offices were organized.

A board made of occupational and public health doctors, psychologists, global health experts and communication designers planned the intervention.

Data from 418 incident reports and 731 survey respondents (response rate: 18%) were analyzed. Cardiovascular and infectious diseases and lack of safety measures and resources for cancer prevention were the main health concern; violence and car accidents were the main cause of injuries. The intervention focused on physical activity and healthy diet promotion, smoke cessation, safety at work, stress management and infection control. Downloadable posters, leaflets, videos and a handbook were produced. Prefab modular health clinics are in planning stage. Future surveys will value the efficacy of the intervention.

Poor available literature and a variegated educational/cultural backgroundmade it difficult to plan the intervention. Peer education in such settings is discouraged. Site visits are needed but can be dangerous (political instability, poor infrastructures) and require local staff support. Offices are hard to reach and internet connections are slow, unreliable. Downloadable documents should be preferred to live/streaming lessons.

Key messages

- Promoting health among humanitarian workers in developing countries poses several unique problems. Extensive knowledge of the socio-cultural/geopolitical Background and local staff support are needed
- While planning the health promotion intervention, availability of infrastructures, distribution of employees on the territory and quality of interpersonal relationships must be taken into account

Asian American immigrant experience: A mixed-method study of barriers to colorectal cancer screening

Sunmin Lee

S Lee, M Jung, D Ng, J Sim
Department of Epidemiology and Biostatistics, University of Maryland School of Public Health, College Park, Maryland, USA
Contact: sunmin@umd.edu

Background

Although colorectal cancer(CRC) is the third leading cause of cancer deaths among Asian Americans, Chinese and Koreans report significantly lower screening rates than Whites and African Americans. We aim to examine facilitators and barriers of CRC screening among Chinese and Korean Americans

Methods

This study used quantitative data from surveys and qualitative data from 12 focus groups. Surveys were completed by 120 Chinese and Korean American focus group participants aged 50–75. All participants were asked to discuss non-cultural and cultural facilitators and barriers of CRC screening.

Results

Participants who i)thought colonoscopy was embarrassing and ii)were anxious about colonoscopy were 3.8 and 4.3 times more likely to not be screened, respectively. Participants who believed colonoscopy is not needed when there are no symptoms were 16 times more likely to not be screened. Similarly, focus group participants indicated that they did not want to use time and money when they do not have symptoms since prevention is not a priority. Those who i)were recommended screening by doctors and ii)had a regular doctor were 8 and 5.2 times more likely to do the screening, respectively. Cultural factors that impeded CRC screening included fear of finding cancer, complex healthcare system compared to China/Korea, language barriers, fatalism, and high pain tolerance. Participants expressed concerns about burdening the family due to their dependence on family for logistical needs and causing emotional hardship if diagnosed with CRC.

Conclusions

Strategies that address the identified facilitators and barriers can increase CRC screening and reduce CRC related deaths in these populations. Culturally and linguistically tailored interventions are needed to increase CRC screening among Chinese and Korean Americans.

Key messages

- This mixed methods study found that there are various barriers, including those from being immigrants, that contribute to significantly lower rate of CRC screening among Chinese and Korean Americans
- Culturally and linguistically tailored interventions are needed to increase CRC screening rate among Chinese and Korean Americans

Changes in physical activity and subsequent changes in health related functioning

Ansku Holstila

A Holstila, M Mänt, O Rahkonen, E Lahelma, J Lahti
Department of Public Health, University of Helsinki, Helsinki, Finland
Contact: ansku.holstila@helsinki.fi

Background

Functioning becomes increasingly important issue over the coming decades, because the proportion population aged 65 year or older will increase significantly. However, only few studies have examined the association between changes in physical activity and changes in health related functioning. The aim of this study was to examine, how changes in physical activity are associated with subsequent changes in health related functioning.

Methods

Helsinki Health Study (HSS) cohort data is used in this study. The baseline surveys (n = 8960, response rate 67%) were conducted among 40–60-year-old employees of the City of Helsinki in 2000–2002. First follow-up survey was conducted in 2007 (n = 7332, response rate 83%) and second follow-up in 2012 (n = 6814, response rate 79%). Identical measures of leisure-time physical activity and physical functioning (SF-36) in all three phases. Logistic regression was used to calculate the odds ratios (ORs) and 95 % confidence intervals (CI). In the analysis age, gender, socioeconomic position and baseline physical functioning were adjusted for.

Results

Persistent and emergent physical activity was inversely associated with persistent and emergent poor physical functioning. The level of physical functioning was less likely to be poor in 2007 and 2012 or became poor in 2012 among persistently moderately or highly active (OR = 0.55, 95 % CI 0.45-67) or those who increased they physical activity (OR = 0.63, 95 % CI 0.49-0.84) between baseline and 2007 compared to those whose physical activity level remained low.

Conclusions

Emergent and persistent physical activity were associated with lower probability of poor subsequent functioning. Physical activity should be promoted among older people, who are at risk of losing their functional abilities.

Key messages

- Persistent and increased physical activity was inversely associated with poor health related functioning
- Promoting physical activity among older age group is important for the maintenance of their functioning ability

7.P. Oral presentations: Research in health care

Self-reported health before and after disability pension over two decades - the HUNT Study

Gunnhild Vie

G Vie[1], *K Pape*[1], *S Krokstad*[1,2], *R Johnsen*[1], *JH Bjørngaard*[1,3]
[1]Department of Public Health and General Practice, Norwegian University of Science and Technology, Trondheim, Norway
[2]Levanger Hospital, Levanger, Norway
[3]Forensic Department and Research Centre Brøset, St. Olav's University Hospital, Trondheim, Norway
Contact: gunnhild.vie@ntnu.no

Introduction

Transition to disability pension (DP) is associated with a temporary decline in self-rated health and increased mental and somatic symptoms. The high frequency of DP in Norway has caused concern about non-medical causes of work disability. We aimed to examine the self-rated health, sleep problems and mental symptoms before and after receiving a DP over two decades, in order to evaluate possible temporal changes in the symptom load around time of DP.

Methods

We linked data from HUNT2 (1995-97) and HUNT3 (2006-08) to data on disability pensions provided by Statistics Norway. We identified participants who received a DP within five years before or after participation in each health study (n = 5353 in HUNT2/ n = 4639 in HUNT3). Using logistic regression adjusted for age, sex, marital status and education, we estimated self-rated health, insomnia and mental symptoms depending on time since DP and predicted the average marginal probability of poor health for each year.

Results

Probability of poor self-rated health peaked around time of DP. It was slightly lower in HUNT3 (74% the year before DP, 95% CI 70–79%) than HUNT2 (83% the year before DP, 95% CI 79–87%) for those 50 years or older. Probabilities were similar between HUNT2 (peak at 82%, 95% CI 77–88%) and HUNT3 (peak at 79%, 95% CI 72–86%) for those younger than 50. The peak in depressive symptoms was more pronounced in HUNT2 than HUNT3. Probabilities of insomnia were similar between HUNT2 and HUNT3. Symptoms of anxiety were slightly higher at HUNT2 (31% the year before DP, 95% CI 27–34%) than HUNT3 (26% the year before DP, 95% CI 22–30%).

Conclusion

We confirmed a deterioration of health around the time of DP. Those who received a DP in the '90 s and '00 s evaluate their overall health as equally poor. Mental health around time of DP was better in the '00 s than in the '90 s. This indicates that current policies work adequately.

Key messages

- Levels of poor self-rated health among disability pensioners are stable over the last decades, whereas mental symptoms around time of work disability have improved
- Current policies, including later reforms, seem to work adequately

Attending to health check-ups and medically certified sickness absence in 10 year follow-up

Kustaa Piha

K Piha, E Lahelma, O Rahkonen
Department of Pubic Health, University of Helsinki, Finland
Contact: kustaa.piha@helsinki.fi

Background

Health check-ups are provided free of charge for all population of certain age groups in many countries and workplaces. However, it is known that more healthy people attend more frequently in check-ups than their less healthy counterparts. The main objectives of the study are to analyze 1) how attending to health check-ups varies between socio-economic groups, and 2) how attending to health check-ups is associated with subsequent sickness absence.

Methods

The study included 13.274 full-time municipal employees of the City of Helsinki aged 40, 45, 50, 55, and 60 years in each year of 2000–2002, who were invited to health check-up carried out by occupational nurse. Education, occupational class, and individual income were used as indicators of socio-economic position. The outcome was number of medically certified 3 days or longer sickness absence during follow-up until 2012 (average 8,7 years). Poisson regression was used.

Results

The preliminary results from the fully adjusted models indicate that employees not attending health check-ups have more sickness absence (RR 1,20 among men and 1,57 among women) in the follow-up and are younger. Instead, no significant socio-economic gradients were evident in attending health check-ups. Socio-economic differences in sickness absence by education and occupational class were clear and attending to health check-ups had only minor effects on these.

Conclusions

Health check-ups are clearly associated with medically certified sickness absence in long-term follow-up. Socio-economic differences in attending health check-ups were not evident. Health check-ups were not very effective in reducing socio-economic differences in sickness absence. More targeted instead of universal health check-ups should be considered. More attention should be paid in methods of inviting low participation groups to increase attending.

Key messages

- Employees with less sickness absence attend more in health check-ups
- Health check-ups have only minor effect on socio-economic gradients in future sickness absence

Accounting for multimorbidity lowers estimates of disease burden substantially

Henk Hilderink

HBM Hilderink[1], *MHD Plasmans*[1], *BEP Snijders*[1], *HC Boshuizen*[1,2], *MJJC Poos*[1], *CH van Gool*[1]
[1]RIVM-National Institute for Public Health and the Environment, Bilthoven, The Netherlands
[2]Wageningen University, Wageningen, The Netherlands
Contact: henk.hilderink@rivm.nl

Background

Many Burden of Disease (BoD) studies do not account for multimorbidity in their BoD estimates. Ignoring multimorbidity therefore leads to inaccuracies in BoD estimations, in particular in ageing populations that include large proportions of persons with two or more diseases. Objective of this study is to improve BoD estimates for the Netherlands that account for multimorbidity. Therefore, we analyze different methods to 1) estimate prevalence of multimorbidity and 2) to derive disability weights for multimorbidity, by using existing data on single diseases.

Methods

We included the 25 most important diseases from the Dutch Burden of Disease study. First, we analyzed four methods to estimate the prevalence of multimorbid conditions. Secondly, we analyzed three methods to calculate combined disability weights for multimorbid conditions. The combination of these two approaches was used to recalculate the Years Lived with a Disability (YLD), which is a component of the Disability-Adjusted Life Years (DALY).

Results

This study shows that estimates for YLD, related to 25 diseases, can be up to 8% lower when accounting for multimorbidity applying a multiplicative method for combined disability weights and even up to 22% with the maximum method.

Adjusting for dependent co-occurrence of diseases lowers the YLD for the multiplicative method with 9% and for the maximum method with 25%.

Conclusions

We conclude that BoD calculations that do not account for multimorbidity can give an overestimation of the real BoD. This can affect public health policy strategies that focus on single diseases when underlying cost-effectiveness analysis overestimate intended effects. The methodology in this study could be further refined towards a better understanding of co-occurrence and possible consequences of multimorbid conditions in terms of disability for particular combinations of diseases, such as COPD and lung cancer which have smoking as a shared risk factor.

Key messages

- Multimorbidity should be taken into account when making burden of diseases estimates
- This study provides different methodologies to estimate the disease burden related to multimorbidity

Healthcare situation of adults with spina bifida in Germany

Birgit Babitsch

B Babitsch[1], AC Schipper[1], T Michael[2]
[1]New Public Health, Osnabrueck University, Osnabrueck, Germany
[2]SPZ, Charité-Universitätsmedizin Berlin, Berlin, Germany
Contact: bbabitsch@uni-osnabrueck.de

Background

People with spina bifida are very different regarding their health and living conditions and their psychosocial situation. Various specialist disciplines are necessary to meet the needs of people with spina bifida adequately. In Germany, children and adolescents with spina bifida can utilize coordinated multiprofessional healthcare facilities, so called Center for Social Pediatrics. In contrast, adults with spina bifida have only limited access to multiprofessional healthcare facilities due to legal regulations. This study determines the current health care situation and living conditions of adults with spina bifida in Germany.

Methods

A mixed methods design is applied in this study comprising of 1) 41 expert interviews, 2) a quantitative survey (June till September 2014) and 3) focus groups. The questionnaire covers seven main topics: current living condition, health condition, activities of daily living, continence, structures of leisure and environment, current healthcare situation and quality of life.

Results

Participants of the questionnaire are 449 adults with spina bifida (181 male; 259 female; 9 not specified; age range: 18 to 78 years; mean age: 34 years).

The adults state that there is a lack of knowledge about spina bifida by physicians and medical staff. Thus they have to take long distances to find qualified healthcare services. For 28 % of the participants it is difficult to plan their medical appointments independently. The average grade for the healthcare situation is grade 3 (German grading system).

Multiprofessional and comprehensive health care structures (centralised or coordinated) are favorite healthcare concepts preferred by most of the adults with spina bifida.

Conclusion

Adults with spina bifida, depending on their physical and cognitive skills, face problems in both healthcare and social life. So far a multiprofessional and comprehensive healthcare structure is lacking in Germany, but urgently needed.

Key messages

- There is a need for specialised training for healthcare professionals
- Comprehensive and multiprofessional healthcare structures should be established to address the complexity of needs of adults with spina bifida

Increase in palliative sedation and reasons in cancer patients in Dutch general practice 2005–2014

Gé Donker

GA Donker, CE Van Dijk
NIVEL, Netherlands Institute of Health Services Research, Utrecht, The Netherlands
Contact: g.donker@nivel.nl

Background

Little is known about the quantity and reasons for use of palliative sedation in cancer patients in general practice and the reason to apply palliative sedation when a request for euthanasia was pending.

Aim

To gain more insight into the reasons for palliative sedation at the end of life, also when a request for euthanasia was pending in cancer patients in Dutch general practice.

Design and setting

Dynamic cohort study using registrations and questionnaire data of Dutch GPs.

Method

Trends and reasons for use of palliative sedation in cancer patients were analysed using multilevel analyses in the years from 2005 until 2014 in the Sentinel Practices of NIVEL Primary Care database.

Results

From 2005–2014, 220 cancer cases dying after palliative sedation were reported from 62 general practices. The incidence of palliative sedation increased in 2014 threefold compared to the nine years before ($P < 0.001$). Patient involvement in decision making before the start of palliative sedation (91%) was less frequently present in patients with delirium and in older patients (>75 years, 87%) than in the group <75 years of age (94%, $P < 0.05$). Pending euthanasia requests were present in 20% of cases; the choice for palliative sedation in these cases was: rapid progression of the disease and/or short life expectancy (55%), preference of patient and/or relatives (23%), adequate communication impossible (17%).

Conclusion

Palliative sedation showed a threefold increase in 2014 compared to the nine years before. There is no indication that palliative sedation is performed to avoid euthanasia.

Key messages

- A sudden threefold increase in palliative sedation in cancer patients in 2014
- No indication that palliative sedation is used to avoid the application of euthanasia

PARALLEL SESSION 8

Saturday 17 October 2015 11:00–12:30

8.A. Regular workshop: From global to local: Violence and Mental Health

Organised by: EUPHA Section on Public Mental Health
Contact: jutta.lindert@hs-emden-leer.de

Chairs: Jutta Lindert (Marija Veniute)

Violence is a main determinant of mental health. It can take many forms sich as physical violence (e.g., female genitale mutilation); structural violence (e.g., homelessness, discrimination) and emotional violence (e.g., discrimination, exclusion attitudes and practices). Violence in its many forms affects individuals in all age groups and is associated with a broad variety of psychopathologies. The short-, medium -, and long term impact of violence on psychopathologies varies according to the type and duration of exposure to violence and several moderating factors related to the individual. Specifc trayectories are stll unkniwn and need further research.
Our goal in this workshop is to contribute to better understand the links between several forms of physical, structural and emotional violence and psychopathologies.

1. The first presentation will present data on the impact of female genitale mutilation on psychopathologies.
2. The second presentation highlights the impact of structural violence on mental health of homeless individuals living in France.
3. The third presentation investigates the association of discrimination on migrants living in Spain.
4. The fourth presentation provides data on exclusion and psychopathology of individuals living in Lithuania.

Presentations are followed by a discussion between speakers and the audience to initiate networks of research on violence and mental health.

Key messages

- Violence in its mangifold faces has devastating effects on mental health
- These effects are complex and need further investigation

Female genital mutilation, a life events that hurts..

Erick Vloeberghs

E Vloeberghs
PHAROS, Center of expertise on health disparities, Utrecht, The Netherlands
Contact: e.vloeberghs@pharos.nl

Female genital mutilation (FGM) is a procedure involving the external genital organs for which there is no medical necessity. More than 140 million girls and women today have been subjected to FGM in the 29 countries where FGM is performed. Migration resulted prevalence of FGM in Europe. There are an estimated 29.120 women in the reproductive age with FGM living in the Netherlands. In 2008–2009 a study was conducted involving a sample of 66 migrant women, aged 18 to 60. The study used a mixed method to explore mental health, and social and relational consequences of FGM. The questionnaires included: Harvard Trauma Questionnaire, the Hopkins Symptom Checklist, the COPE-Easy and the Lowlands Acculturation Scale. The topic list used contained 42 questions.

Results

An indication for PTSD was present in almost one in six subjects (n = 11, 17.5%) as they had a HTQ scale score that exceeds the threshold value for PTSD. Almost a third (n = 20, 31.7%) showed an HSCL anxiety score above the threshold value, and one third (n = 22, 34.9%) scored above the threshold value on the HSCL depression scale. Also women with a milder form of FGM reported posttraumatic symptoms. A combination of type III (infibulation), vivid memory, migration at a later age, low levels of education and inadequate support from the partner were concomitant with serious mental health symptoms. Chronic pain and bad memories reinforced each other and led to a situation of mutual maintenance. In a number of cases, pain during lovemaking had an adverse effect on the relationship with the partner.

Discussion

Of importance regarding FGM is that this harmful tradition is forbidden by law in most receiving Western countries. The prohibition has a considerable impact on the women, since what was once regarded normal, even undisputable, is now labelled deviant and repulsive.

Homeless-ness is associated with psycho-pathologies

Stephanie Vandentorren

S Vandentorren, E Le Méner, N Oppenchaim, A Arnaud, C Jangal, C Caum, C Vuillermoz, J Martin-Fernandez, S Lioret, M Roze, Y LeStrat, E Guyavarch
Observatoire du Samusocial de Paris, 75012 Paris
INSERM, UMR_S 1136, Pierre Louis Institute of Epidemiology and Public Health, Department of social epidemiology, F-75013, Paris, France
Sorbonne Universités, UPMC Univ Paris 06, UMR_S 1136, Pierre Louis Institute of Epidemiology and Public Health, Department of social epidemiology, F-75013, Paris, France
French Institute for Public Health Surveillance, Saint-Maurice, France
Université Paris Ouest Nanterre La Défense, Laboratoire Espace, Santé et Territoires, 92000 Nanterre, France
Université François Rabelais, Laboratoire Citeres, UMR CNS 7324, 32000 Tours, France
INSERM, UMR1153 Epidemiology and Biostatistics Sorbonne Paris CitéCenter (CRESS), Early determinants of the child's health and development Team (ORCHAD), Paris, F-75014 France, Paris Descartes University, France
Contact: s.vandentorren@ars.sante.fr

Background

The objectives were to estimate the size of homeless family population in Paris region, to describe their living conditions and health, and to analyse the impact of homelessness on children's growth and development.

Methods

In 2013, we conducted a cross-sectional survey on a random sample of homeless sheltered families. Families were interviewed in 17 languages and a nurse took anthropometric measures, blood samples and collected health data from child health reports.

Results

The population size was estimated at 10,280 families. The mean age of parents was 32.6 years. Half were single-parent female families and Ninety-four percent were born outside France. Most families had experienced housing instability and 94% were living below the poverty line. Malnutrition was a major problem: the prevalence of food insecurity was high (80%), as well as anaemia (50% of mothers and 38% of children), and overweightness (38% of mothers were obese, 32% were overweight and more than 26% of children were either overweight or obese). High rates of depressive disorders were found in homeless mothers (30%) and 20% of children had signs of possible mental health disorders.

Discussion

These first results highlight the growing number of families among the homeless population in Paris region. Homeless families differed from other homeless people regarding social characteristics such as birthplace, low income, single-parent status, and housing conditions. In particular, residential instability is likely to influence major factors associated with vulnerability including schooling, health and access to care.

Discrimination and mental health among persons with immigrant background in Europe

Carme Borell

C Borrell, L Palència, X Bartoll, U Ikram, D Malmusi
[1]Agència de Salut Pública de Barcelona, Barcelona, Spain
[2]Ciber de Epidemiología y Salud Pública, Spain
[3]Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands
Contact: cborrell@aspb.cat

Background

The objective is to study the association of perceived discrimination and self perceived health, depression, and activity limitations among men and women with immigrant background living in Europe, taking into account generation (first vs. second) and country integration policy (countries of residence were classified following the MIPEX-based typology proposed by Meuleman (2009): Multicultural, Assimilationist and Exclusionist).

Methods

Cross-sectional design using the European Social Survey of 2012. The population studied are residents in 18 European countries, aged >=15 years and born abroad or with both parents born abroad (excluding IMF advanced countries) (n = 2,971). Health outcomes are self-perceived health, depression (CES-D-8 scale >8) and activity limitations. Main independent variables are: a) Perceived discrimination: being a member of a group that is discriminated against by race, nationality, language, religion or ethnicity; b) First or second generation (either the individual or both parents are born abroad); c) countries integration policy.

Results

People who felt discriminated varied between 6.7 among women of first generation of assimilationist countries to 35.7% among women of second generation of multicultural countries. Discrimination was associated with poorer health outcomes only among first-generation immigrants (e.g., adjusted prevalence ratio of depression comparing people who perceive and do not perceive discrimination was 1.61 –95%CI: 1.32-1.95- for women and 1.71 –95%CI: 1.33-2.20- for men). More associations of discrimination with poor health outcomes were found in assimilationist and exclusionist countries. Conclusion: Perceived discrimination is related to health outcomes in first generation immigrants mainly in assimilationist and exclusionist countries. Integration policies are important to improve health outcomes in these populations.

Attitudes towards social inclusion of people with mental disabilities in Lithuania in 2006 and 2015

Marija Veniute

M Veniute
Vilnius University, Faculty of Medicine, Institute of Public Health, Vilnius, Lithuania
Contact: marija.veniute@mf.vu.lt

Background

Social inclusion is a crosscutting priority for mental health policies and one of crucial outcomes for people with mental disabilities (PMD). Attitudes towards social inclusion of PMD may serve as an indicator of stigmatization. Lithuania as other post-soviet countries inherited a largely institutionalized system for people with mental disorders and disabilities. Since 2007 Lithuania has been reorganizing mental health systems to support social inclusion of PMD. The study aims to identify attitudes towards social inclusion of people with mental disabilities in Lithuania and to explore if institutional reforms for social integration undergoing in the country for the last decade are reflected in changes of public attitudes towards social inclusion of people with mental disabilities.

Methods

Data from two population surveys that have been conducted in 2006 and 2015 will be compared.

Results

Attitudes towards social inclusion of people with mental disabilities were measured using 6 attitude scales: attitudes towards mental disability 1.), people with mental disabilities, 2.), active inclusion of PMD into community, 3.), ability of PMD to work, 4.) readiness of the community to accept PMD, 5.), helping to integrate PMD into community. In 2006, the most stigmatizing attitudes towards social inclusion of PMD were expressed by general public and by mental health professionals.

Conclusions

In Lithuania a stigmatizing and rather paternalistic approach towards social inclusion of PMD was observed in 2006. Changes in attitudes will be presented after analysing data of 2015 survey hypothesizing that implementation of mental health and social care policies on social inclusion in Lithuania for the last decade have had a positive impact on changing public attitudes towards social inclusion on PMD.

8.B. Regular workshop: Health assessments: Status and perspectives of basic and advanced approaches

Organised by: EUPHA sections: PH Policy and Practice;PH Epidemiology; PH Monitoring & Reporting; HIA; HTA
Contact: piedad.martin.easp@juntadeandalucia.es

Chairs: Giuseppe La Torre, Piedad Martin-Olmedo

Healthy public policies are characterized by an explicit concern of promoting and protecting the health and equity of those communities which they affect. This concern calls for a solid base of evidence, including status quo and ongoing trends as well as impacts related to policy options and emerging technologies. A prerequisite for assessments to exert positive influence is, of course, policy-makers' readiness to incorporate assessment-based evidence.

To provide solid knowledge about status quo and ongoing trends in a population, is the aim of monitoring and surveillance routines, often resulting in generic or specialized health reports. For many policies inside and beyond the health sector as well as (health) technologies, the influence on health takes place through several complex causal pathways. This may involve the modification of upstream health determinants, (e.g., environmental conditions, living and working conditions) and related risk factors downstream. Factors may act in conflicting directions, typically creating a need for an interdisciplinary and/or intersectoral approach and for evidence-based tools, explicitly linked to the best available scientific evidence and reflecting community preferences and feasibility.

The proposed workshop looks into the role of different evidence-based health assessments in the formulation of healthy public policy and public health practice on various levels, from global to local (such as: urban) level. More specifically the following types of health assessments are being explored: (i) Reporting of health status &trends; (ii) Prospective health impact assessment (HIA) and related impact assessments; (iii) Health technology assessment (HTA). For each type of assessment, there are both basic and advanced approaches, embedded into established procedures, often involving a range of actors and sets of rules or principles. The overall aim is to improve assessment practice. More specifically, the aims are:

- to identify what is needed from a policy and practice perspective, incl. in urban environments
- to present brief overviews of the current situation including basic and advanced assessment approaches
- to discuss cross-cutting issues including commonalities and differences of assessment types (e.g., interest in, and uptake of, evidence; usage of specialized tools) as well as potential perspectives of 'co-evolution' of health assessments.

This is a sequel to the 2014 workshop 'HTA and HIA - Two key examples of health assessment' which was very well received and led to a discussion within the EUPHA section council earlier this year.

Key messages

- For evidence-based policy-making - within and beyond the health sector - health assessments are key approaches
- The systematic comparison of different assessment 'cultures' offers opportunities for their cross-fertilization and co-evolution

On the role of health assessments in public health practice and policy

Kai Michelsen

K Michelsen[1], P Martin-Olmedo[2], R Fehr[3]
[1]Maastricht University,Maastricht, Tthe Netherlands
[2]Escuela Andaluza de Salud Pública, Granada, Spain
[3]Fakultaet fuer Gesundheitswissenschaften, Universitaet Bielefeld, Bielefeld, Germany
Contact: kai.michelsen@maastrichtuniversity.nl

Public health practice and policy face a broad scope of different topics and functions as well as diversity of population groups. There are numerous other factors exerting influence, i.e. institutional arrangements, leadership, knowledge and accountability with regards to stakeholder engagement, agenda setting, implementation and evaluation. Competing values, (vested) interests, and limited resources also need to be taken into account.

Policy making is often viewed as a strictly rational process, consisting of a clear definition of goals and values, the identification of policy options, selection of the best alternatives, their implementation and evaluation. In reality, however, the legitimation of political decisions is not only based on the consideration of adequate 'knowledge' but also on practised democratic principles. The assumptions of a rational model for policy making have also been challenged by political and institutional models.

Various health assessments (HAs) are meant to support policy making and practice. To some extent, such assessments assume a rational character of policy-making. Thus, development of HAs would mean to develop capacities for rational policy making, including horizontal and vertical integration of HA as well as varying capacities and needs in different settings and on different levels.

But clarification is needed to what extent health assessment practise is framed by characteristics of the rational, political, or institutional models of policy making. Key questions include the following:

1. What determines today's (non-/)usage of HAs for real-life Public Health practice and policy making in different settings?
2. How could HAs be integrated more efficiently, respecting the prevailing complexity including political/institutional logic?
3. How to develop capacities for improving policy making and practice by means of HAs? What implications for teaching, training, and support can be foreseen?

Public Health Monitoring and Reporting: a collaborative process with multiple stakeholders

Nicole Rosenkötter

N Rosenkötter[1], MJH van Bon-Martens[2], B Borrmann[1], M Verschuuren[3]
[1]NRW Centre for Health, Public Health Reporting, Bielefeld, Germany
[2]Trimbos Institute, Utrecht, The Netherlands
[3]WHO Regional Office for Europe, Division of Information, Evidence, Research and Innovation, Copenhagen, Denmark
Contact: Nicole.rosenkoetter@lzg.nrw.de

Public health monitoring and reporting (PHMR) is defined as '[...] ongoing systematic collection, analysis and interpretation of health-related data essential to the planning, implementation and evaluation of public health practice, closely integrated with the timely dissemination of these data to those who need to know so that action can be taken' [CDC].

This comprehensive definition reveals the variety of tasks involved: the definition and maintenance of a data/indicator base, the application of analytical approaches, the formulation of policy priorities, and dissemination and knowledge translation of PHMR results. Thereby, PHMR is a collaborative process with various stakeholders (e.g. policy, interest groups) and can comprise basic and advanced approaches.

The data component can be based on basic civil registration and vital statistics systems, or can include a wider variety of health-related data across different health domains and policy sectors. Applied analytical approaches can range from rather basic descriptive analyses to more sophisticated analyses that link health data with data from other sectors or include forecasting approaches. The formulation of policy priorities/advice can be directly based on the presented data or incorporate scientific evidence and evidence-based recommendations. To disseminate monitoring results, approaches can range from generic paper reports and targeted publications for different audiences, to active involvement in committees, or comprehensive online documentation, including advanced graphical or audio/video approaches.

This rough overview shows that PHMR comprises several tasks and approaches. Their application depends on existing resources, knowledge, or specific needs on local, regional, national or international level. To improve public health monitoring and reporting in Europe it is essential to support infrastructure development (e.g. workforce, health information systems) and regular good practice exchange.

Prospective Impact Assessment - Taking stimulation from, and giving it to, other types of assessment

Odile Mekel

O Mekel[1], P Martin-Olmedo[2], M Martuzzi[3], J Nowacki[3], R Fehr[4]
[1]Landeszentrum Gesundheit Nordrhein-Westfalen, (LZG.NRW, Bielefeld, Germany
[2]Escuela Andaluza de Salud Pública, Granada, Spain
[3]World Health Organization, European Centre for Environment and Health, Bonn, Germany

[4]Fakultaet fuer Gesundheitswissenschaften, Universitaet Bielefeld, Bielefeld, Germany
Contact: Odile.Mekel@lzg.nrw.de

Issue/problem

Prospective impact assessment (IA) is an established approach for pursuing 'foresight' in policy and decision-making by aiming to predict, anticipate and steer the implications of projects and policies. Human health is often not covered adequately in (environmental, social, etc.) IAs. Partially as a response, specific Health impact assessment (HIA) has evolved. Like other forms of IAs, HIA faces a range of challenges, especially poor coverage of equity; difficulties with community engagements; complexity of considering cumulative effects; and 'clashes' of vested interests / different worldviews.

Approach

EUPHA's HIA section was initiated in 2010 to foster HIA development, for the benefit of population health. The section established strategic cooperation with WHO-Europe; International Association for IA; and various research groups. It engages in specific activities such as 'Family of IAs' analysis; toolmakers survey concerning quantitative HIA; compilation of HIA practice in countries & regions. The latter topic is currently taken forward with an international survey on HIA/EIA.

Results

At present, HIA keeps being underutilized. Beyond other IAs, HIA is also interrelated with other advanced health assessments, e.g. concerning population subgroups, outcome indicators, and quality of evidence. Based on this, a mini-survey was conducted which triggered positive responses from multiple EUPHA sections towards joint discussion. In addition, since different types of health assessment aim at similar target groups potentially creating 'information overload' and 'assessment fatigue', ways of coordination and possibly coalescence need to be discussed.

Lessons

In order to fully exploit the potential of various forms of health assessment, to capitalize on synergies and to avoid mutual interference, joint cross-sectional discussion is needed. This is expected to provide stimulating impulses on concepts, practices, and tools, as well as insights for future co-evolution.

The contribution of Health Technology Assessment to health policies

Chiara de Waure

C de Waure[1,2], C Favaretti[3], W Ricciardi[1]
[1]Institute of Public Health, Catholic University of the Sacred Heart; Rome, Italy
[2]Vice-president EUPHA section on Health Technology Assessment (HTA);
[3]President EUPHA section on HTA
Contact: chiara.dewaure@rm.unicatt.it

Issues/problem

Health Technology Assessment (HTA) provides decision makers with multidisciplinary and thorough evaluation of diverse health technologies but how far is it taken into consideration in the definition of health policies?

Description of the problem

Even though HTA is expected to inform decision-making at several levels, from micro to macro, concerns still arise on the translation of research into practice and policies in the real world. Since HTA is deeply linked to the decision-makers counterpart and should be not only oriented but also driven by decision-making, it could really provide valuable insight into the ways to get a fruitful integration between research and policy.

Results

A broad body of evidence has addressed in the past years the challenges linked to the translation of HTA results in the decision-making process. Several factors have been identified as potential incentives to strengthen the impact of HTA. Among them, the following may be listed: the early and constant involvement of all stakeholders, the timeliness and the appropriateness of the evaluation, the transparency of process, the proper communication and dissemination of results. The institutional framework could also influence the impact of HTA on policy-making. With this respect, this presentation will address some case studies looking at facilitators and barriers of the implementation of HTA results into practice.

Lessons

HTA is an important tool to tackle health topics, at national, regional and local level. Notwithstanding it, information and best practices on the translation and implementation of HTA results should be shared and born in mind in order to really support an informed and evidence based policy.

8.C. Oral presentations: Addressing health care needs of minorities

Strengthening self-management competencies of Turkish family caregivers of people with dementia

Hürrem Tezcan-Güntekin

H Tezcan-Güntekin, O Razum
Bielefeld University, Faculty of Public Health, Bielefeld, Germany
Contact: huerrem.tezcan@uni-bielefeld.de

Introduction

Migrants from Turkey who came during the recruitment of workers in the 1960s/1970s to Europe now reach the age when their need of nursing care increases. Research shows that in the next ten years the care need of older Turkish migrants in Germany will increase substantially. Elderly migrants are often being cared for by their family members and they do not take up professional support. In order to enable family caregivers to continue to take care of their relatives, support and empowerment are needed. The aim of this project is to analyze the psychosocial burden and the needs of Turkish family caregivers of persons with dementia, and to develop concepts to empower the caregivers' self-management competencies.

Methods

Ten semi-structured interviews with experts and 20 semi-structured interviews with Turkish family caregivers of people with dementia were conducted and analyzed using content analysis.

Results

The quality of home care is often insufficient because many family caregivers experience health problems and have a lack of knowledge regarding nursing care. Family caregivers are often affected by mental health problems, in particular by depression. They seek help at a very late stage because they perceive the dementia of their relative as a taboo in the Turkish community in Germany.

Conclusions

Turkish family caregivers of people with dementia have a great burden, so that different instruments have to be developed to empower the self-management competencies of this heterogeneous group. One of them is 'story telling', a self-help-oriented approach. Another one is the user-oriented transition from hospital to home care with the assistance of care instructors in Turkish, their native language. Both instruments are currently under development, based on the research findings.

Key message

- Turkish family caregivers are strongly affected mentally but difficult to reach for help. User oriented outreach support instruments have to be established to strengthen their self-help competencies

Hospital attendance for anaphylaxis among immigrants and non-immigrants: a Danish cohort study

Maria Kristiansen

M Norredam[1,2], *A Sheikh*[3,4], *K Dynnes Svendsen*[5], *J Holm Petersen*[5], *LH Garvey*[6], *M Kristiansen*[7]
[1]Danish Research Centre for Migration, Ethnicity and Health, Section of Health Services Research, Department of Public Health, University of Copenhagen, Copenhagen, Denmark
[2]Section of Immigrant Medicine, Department of Infectious Diseases, Copenhagen University Hospital, Hvidovre, Denmark
[3]Allergy & Respiratory Research Group, Centre for Population Health Sciences, The University of Edinburgh, Edinburgh, UK
[4]Division of General Internal Medicine and Primary Care, Brigham and Women's Hospital/Harvard Medical School, Boston MA, USA
[5]Section of Biostatistics, Department of Public Health, University of Copenhagen, Copenhagen, Denmark
[6]Allergy Clinic, Copenhagen University Hospital Gentofte, Denmark
[7]Danish Research Centre for Migration, Ethnicity and Health, Section of Health Services Research, Department of Public Health, University of Copenhagen, Copenhagen, Denmark
Contact: makk@sund.ku.dk

Background

The impact of migration on the risk of anaphylaxis is unknown. We hypothesized that non-Western immigrants have a lower incidence of anaphylaxis compared to Danish-born. We investigated variations in hospital attendance for anaphylaxis between immigrants and Danish-born including time- and age- trends.

Methods

A register-based, historical prospective cohort design. Immigrants ($n = 127,250$) who, between January 1,1994 and December 31, 2010, obtained residency permits in Denmark were included and matched in a 1:6 ratio on age and sex with Danish-born individuals ($n = 740,600$). Personal identification numbers were cross-linked to the Danish National Patient Registry identifying all first-time hospital attendances for anaphylaxis. Incidence rate ratios were estimated stratified for sex and region of birth, adjusting for age using a Cox regression model including the influence of duration of residence and age when residence was obtained.

Results

In total 1,053 first-time hospital attendances for anaphylaxis were identified: 98 among immigrants and 955 among Danish-born patients. Both male ($RR = 0.65$; 95%CI: 0.46;0.90) and female ($RR = 0.64$; 95%CI: 0.48;0.85) non-Western immigrants had a significantly lower risk ratio of hospital attendance for anaphylaxis compared to Danish-born. Compared to newly arrived immigrants, those living in Denmark during the entire follow-up period showed an increased risk ($RR = 2.42$; 95%CI:1.30;4.51). Compared to those who were children when obtaining residence individuals aged 18–60 years had an increased risk of hospital attendance for anaphylaxis ($RR = 2.80$; 95%CI: 1.29;6.10).

Conclusions

This novel register-based study using nationwide data revealed a lower incidence of first-time hospital attendances for anaphylaxis among non-Western immigrants compared to Danish-born; this protection was however lost over time following migration. Information on the burden of anaphylaxis and its variations with time, place and person is important to understand disease aetiology, but also for ensuring adherence to evidence-based anaphylaxis guidelines in clinical management and patient support for persons at risk of this potentially life-threatening event.

Key messages

- Immigrants have a lower incidence of first-time hospital attendances for anaphylaxis but may experience higher risk with time following migration into Europe
- Migrant studies hold the potential to increase understanding of disease aetiology in allergy research

Coping and loss amongst conflict-affected Georgian women

Maureen Seguin

M Seguin[1], *B Roberts*[2]
The London School of Hygiene and Tropical Medicine, The Centre for Health and Social Change, London, UK
Contact: maureen.seguin@lshtm.ac.uk

Background

The coping strategies of war-affected populations are important to understand in order to implement effective interventions to assist adaptation to the post-conflict period. This presentation focuses on the coping strategies used by Georgian women displaced within Georgia due to the 2008 war with Russia, drawing upon an innovative coping typology composed of five coping domains: problem-solving, support-seeking, escape-avoidance, distraction, and cognitive restructuring.

Methods

Forty semi-structured interviews were conducted with internally displaced Georgian women (aged 18–74) living in three internally-displaced persons (IDP) settlements in Georgia from December 2012 to February 2013. Women were asked about losses and stressors which they face day-to-day as displaced persons, and then asked how they cope with these losses and stressors. Georgian-language interviews were translated and transcribed into English-language transcripts. Informed by theories of coping, thematic analysis was used to organize and interpret coping instances.

Results

The interviewees spoke of coping strategies which fit into each of the five coping domains, largely validating the theoretical framework. Many women took a problem-solving approach to recoup the loss of livelihood by seeking work, budgeting precious monetary resources, and adopting new roles and responsibilities outside the home. While many women sought emotional and material support from friends, family, and neighbours (indicating support-seeking coping), others isolated themselves from possible sources of support, expressing that they had 'given up hope' (indicative of escape-avoidance coping). Various distraction techniques, such as engaging in household work, gardening, and leisure activities were reported, as well as cognitive restructuring rooted in religious faith and adopting a positive outlook on life.

Conclusions

Georgian women internally-displaced by the 2008 conflict with Russia have employed a large variety of coping strategies to address losses and stressors associated with displacement. Resources to expand employment initiatives and support systems may bolster coping activities, assisting these women and their families as they adjust to life circumstances in the post-conflict period.

Key messages

- Displaced women identified economic losses as their most prominent challenge in day-to-day life. They employed a variety of innovative coping tactics to address this loss
- Both seeking social suport and withdrawing from others were reported across the sample as ways of coping with the hardships of displacement

Disparities in type 2 diabetes among ethnic minority groups resident in Europe - a meta-analysis

Karlijn Meeks

K Meeks[1], *D Freitas-Da-Silva*[1], *A Adeyemo*[2], *E Beune*[1], *P Modesti*[3], *K Stronks*[1], *M Zafarmand*[1], *C Agyemang*[1]
[1]Department of Public Health, Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands
[2]Center for Research on Genomics and Global Health, National Human Genome Research Institute, National Institutes of Health Bethesda, Maryland, USA
[3]Department of Clinical and Experimental Medicine, University of Florence, Florence, Italy
Contact: k.a.meeks@amc.uva.nl

Background

Many ethnic minority groups in Europe have higher type 2 diabetes (T2D) prevalence than their host European populations. The risk size differs between ethnic groups. We conducted a meta-analysis of published data on T2D in various ethnic minority populations, as indicated by geographical origin, resident in Europe compared to their host European populations.

Methods

PUBMED and EMBASE were systematically searched for papers on T2D prevalence in ethnic minority groups in Europe published between 1994 and 2014. The ethnic minority groups were classified into five population groups by geographical origin: South Asian, Sub-Sahara African, Middle Eastern & North African, South & Central American, and Western Pacific. Pooled odds ratios (OR) with corresponding 95% confidence interval (CI) were calculated using Review Manager 5.3.

Results

Twenty articles were included to the analysis. Compared with the host populations, South Asian origin populations had the highest odds for T2D (3.7, 95%CI 2.7–5.1), followed by Middle Eastern & North African (2.7, 95%CI 1.8–3.9), Sub-Sahara African (2.6 95%CI 2.0–3.5), Western Pacific (2.3 95%CI 1.2–4.1), and lastly South & Central American origin (1.3 95%CI 1.1–1.6). Odds were in all ethnic minority groups higher for women than for men except for South & Central Americans. Among South Asian origin subgroups, compared with Europeans, Bangladeshi had the highest odds of 6.2 (95%CI 3.9-9.8), followed by Pakistani (5.4, 95%CI 3.2-9.3) and Indians (4.1, 95%CI 3.0-5.7).

Conclusion

The risk of T2D among ethnic minority groups living in Europe compared to Europeans varies by geographical origin of the group; three to five times higher among South Asians, two to four times higher among Middle Eastern & North Africans and two to three times higher among Sub-Sahara Africans. Future research and policy initiatives on T2D among ethnic minority groups should take the inter ethnic differences into account.

Key message

- The risk of T2D among ethnic minority groups living in Europe compared to Europeans varies by geographical origin of the group

Inequalities by immigrant status in unmet needs for healthcare in Europe

Caterina Francesca Guidi

CF Guidi[1], D Malmusi[2], L Palencia[3,4], S Ferrini[5,6]
[1]European University Institute (EUI), Fiesole (IT) /University of Siena, Italy
[2]Sistemes d'Informació Sanitària, Agència de Salut Pública de Barcelona (ASPB), Barcelona, Spain
[3]CIBER de Epidemiología y Salud Pública (CIBERESP), Barcelona, Spain
[4]Agència de Salut Pública de Barcelona (ASPB), Barcelona, Spain
[5]School of Environmental Sciences, University of East Anglia (UEA), Norwich UK
[6]University of Siena, Siena Italy
Contact: caterinafrancesca.guidi@gmail.com

Background

Adequate access and adaptation of services for immigrants represent an important challenge for health systems in Europe. We aimed to assess inequalities in the satisfaction of health care needs in migrants as compared to natives, and the influence of socioeconomic factors.

Methods

In this cross-sectional study, conducted on 17 European countries in the 2012 EU-SILC dataset, the dependent variables are the unmet needs (UN) for medical and dental examination or treatment.

Immigrant status was grouped in 5 categories as a combination of citizenship and country of birth: local-born nationals, EU-born nationals, non EU-born nationals, EU foreigners, non EU-born foreigners.

With sex-stratified robust Poisson regression models, we calculated the prevalence ratio (PR) of UN according to immigrant status (being local-born nationals the reference category). Models were initially adjusted by age, country of residence and health status (self-rated health, limiting long-standing illness and activity limitation) then by socioeconomic variables (household income, ability to make ends meet and education).

Results

The risk of medical UN is lower in non-EU born national (PR = 0.80;95%CI:0.64–1.00) among men and higher in EU (PR = 1.32;95%CI:1.03–1.70) and non-EU (PR = 1.27;95% CI:1.04-1.56) foreigners among women. The increased risk of foreign women is no longer significant after adjusting for socioeconomic variables. For dental UN, the risk is significantly higher for all foreigners (men: EU-born PR = 1.65, non EU-born PR = 1.69; women: PR = 1.40 in both cases). Once adjusted for socioeconomic variables significant inequalities persist, although diminished, for both EU-born (PR = 1.53) and non-EU-born (PR = 1.27) foreign men and EU-born foreign women (PR = 1.27).

Conclusions

Inequalities in healthcare unmet need by citizenship status are observed in Europe, partly explained by socioeconomic circumstances. Future work will analyse the association of these inequalities with country characteristics.

Key messages

- The study contributes to the discussion of equity in access to healthcare systems by migrants
- The inequalities, which seem to affecting foreigners within and out EU more than naturalised migrants, deserves further attention

Contribution of overweight/obesity to adverse pregnancy outcomes in immigrant and non-immigrant women

Oliver Razum

O Razum[1], K Reiss[1], J Breckenkamp[1], T Borde[2], S Brenne[3], M David[3]
[1]Department of Epidemiology & International Public Health, Bielefeld School of Public Health (BiSPH), Bielefeld University, Germany
[2]Alice Salomon Hochschule Berlin, University of Applied Sciences, Berlin, Germany
[3]Department of Gynecology, Campus Virchow-Klinikum, Charité Universitätsmedizin Berlin, Germany
Contact: oliver.razum@uni-bielefeld.de

Background

Maternal excessive weight and smoking are associated with an increased risk of pregnancy complications and adverse pregnancy outcomes. We compared the contribution of pre-pregnancy overweight/obesity to adverse pregnancy outcomes among immigrant and autochthonous women in Berlin/Germany.

Methods

Data from 2586 immigrant women (from Turkey, Lebanon, other countries of origin) and 2676 autochthonous women delivering in three maternity hospitals of Berlin within 12 months (2011/2012) was used. Maternal BMI was classified in normal weight (18.5–<25 kg/m2), overweight (25–<30 kg/m2) and obesity (>30 kg/m^2). Cox regression models were applied to estimate the association between overweight/obesity and smoking with the outcomes large-for-gestational-age (LGA), small-for-gestational-age (SGA), preterm birth (PTB) and extreme preterm-birth (E-PTB). Population attributive fractions (PAF) were calculated to quantify the proportion of the outcomes attributable to overweight/obesity and smoking, respectively.

Results

Prevalence of overweight and obesity was 33.4% among autochthonous, 53.6% among Turkish and 52.6% among Lebanese women. Prevalence risk ratios of excessive weight were highest for LGA infants among both immigrant (e.g. overweight Turkish women: PRR = 2.96 [95%CI = 1.33-6.61]) and autochthonous women (overweight: PRR = 2.27 [95%CI = 1.55–3.33]). The PAFs of overweight/obesity were −11.8% (SGA), +16.3% (LGA), +3.6% (PTB) and +16.5% (E-PTB) in the total study population. The PAFs of overweight/obesity on LGA were higher in immigrant women (e.g. Turkish women: +14.5) than in autochthonous women (+10.0).

Conclusions

Overweight/obesity is strongly associated with an increased risk of delivering an LGA infant among both immigrant and autochthonous women. Compared with autochthonous women, the contribution of excessive weight to LGA is even higher among immigrant women, in whom PAFs of overweight/obesity even exceed those of smoking for some outcomes.

Key messages

- Overweight/obesity is strongly associated with an increased risk of delivering a large-for-gestational-age (LGA) infant among both immigrant and autochthonous women
- The contribution of excessive weight to LGA is even higher among immigrant women, in whom PAFs of overweight/obesity even exceed those of smoking

8.D. Round table: 'Whiter shades of pale' - public health leadership: policy, research, education and practice

Organised by: EUPHA Working Group on Public Health Leadership and ASPHER (Katarzyna M. CZabanowska and Vesna Bjegovic-Mikanovic

Contact: kasia.czabanowska@maastrichtuniversity.nl

Chairs: Katarzyna M. Czabanowska and Sue Babich (Hobbs)

The presence of competent and effective leaders is crucial to solving complex, unprecedented public health challenges, and achieving progress in the field. In 2010 The Lancet Commissioners identified leadership as one of the global systemic failures and recommended major reforms of the health professions' education and need for the redesign of Public Health structures and processes. There is a need to identify the competency capacities of future leaders in relation to population health and well-being and apply the study results to inform education, training and culture change throughout the workforce. There also appears to be a growing consensus that public health organisations should engage in building leadership capacity at every level and provide a content and context based on evidence to initiate a major reconsideration of professional training and support mechanisms.

The goal of the workshop is to present and discuss different aspects of public health leadership including: policy, research, education and practice which are at a critical juncture for potential improvements.

The workshop will add value to the conference by: 1) offering a wide spectrum of topics related to public health leadership, 2) stimulating a discussion which can help position and define the field, 3) creating the feeling of urgency for action to develop effective leaders for health in the 21st century.

The workshop will assume a round table format and will include five 10 minutes presentations. It will be structured as follows: It will start with a presentation showing the results of the review and policy analysis of the EU documents related to leadership, then the evaluation of leadership practices and competencies among public health executives based on the Lithuanian example will follow. Next, the complexities of female leadership in health care based on the review study will be presented and followed by a joint presentation on leadership, education and training in Europe dedicated to creating a generation of leaders for public health. A final presentation will represent a voice from public health leadership practice in which a graduate of the European Public Health Leadership Program and European Program for Intervention Epidemiology Training (EPIET) of the ECDC working on global cholera control will share what crucial skills for modern public-health professionals in leadership positions are.

The workshop will be interactive, allowing participants to take part in a vigorous debate about the key issues represented by five abstracts.

Key messages

- Research into public health leadership competencies and qualities will aid the capacity building of effective public health leaders
- There is a strong need to develop public health leaders at every level through interdisciplinary and inter-professional education and training

The EU Policies and the need for Leadership

Kevin Rieger

K Rieger[1], A Lafranconi[2], B Gomes[3], L Ploeg[1], S Schee genannt Halfmann[1], R Zurriaga Carda[4]
[1]Maastricht University, Department of International Health, Maastricht, The Netherlands
[2]Universita di Milano Bicocca, Residency in Hygiene and Preventive Medicine, Milan, Italy
[3]Public Health Institute Porto, Porto, Portugal
[4]Hospital General Universitario de Elche. UD de Medicina Preventiva y Salud Pública. Elche, Spain
Contact: k.rieger@student.maastrichtuniversity.nl

Background

Europe has been tackled harshly by the economic crisis. However, what really hurt European countries was the failure of management and the mistakes made to handle the crisis. Lacking leadership may have even more negative effects when it is related to health and well-being of European populations. A European Public health leadership workforce is missing. Organizations such as DG SANTE, ECDC and NGOs fail to assign permanent Directors. Our aim is to map public health leadership development strategies on European level.

Methods

A narrative literature review of official EU documents such as the Council conclusions and Commission communications followed by a policy analysis using an analytical approach was conducted. We searched various databases including the official Journal of the EU and EU Health Policy for EU policies on health workforce development as well as policy recommendations by the World Health Organization related to public health leadership.

Results

There are hardly any existing workforce strategies of the European Union focusing on the development of leadership skills. For instance, the 2012 Action Plan for the EU Health Workforce points out technical skill needs in health professionals, but fails to specify responsibilities among which leadership should be explicitly acknowledged. Whilst the WHO Health 2020 strategy recognizes the need for leadership improvements as one of its strategic objectives, the EU was active in funding Leadership in Public Health project (LEPHIE), which emerged to be a globally acknowledged initiative serving as a future framework for training and policy development.

Conclusions

The efforts to raise the attention to public health leadership skills and their development are yet ineffective. Health workforce strategies on European level should incorporate leadership tracks that prepare professionals for public health leading positions.

The evaluation of self-reported leadership practices of chief executive officers of Lithuanian public health institutions

Mingaugas Stankunas

M Stankunas[1,2], *M Avery*[2], *R Jakaite*[3], *K Czabanowska*[4]
[1]Department of Health Management, Lithuanian University of Health Sciences, Kaunas, Lithuania
[2]Health Service Management Department, Centre for Health Innovation, School of Medicine, Griffith University, Gold Coast, Queensland, Australia
[3]Department of Health Management, Lithuanian University of Health Sciences, Kaunas, Lithuania
[4]Department of International Health, Maastricht University, The Netherlands
Contact: mindstan@gmail.com

Background

Lithuanian and international public health experts emphasize the importance of leadership in public health. The aim of this study - to evaluate the leadership practices among chief executive officers (CEO's) of Lithuanian public health institutions.

Methods

The data was collected in a cross-sectional study, in 2015. Questionnaires were distributed to all CEO's (directors, vice-directors and heads of regional offices) of Lithuanian public health institutions (N = 90). Response rate - 60.0%. Respondents were asked to fill Leadership Practices inventory (LPI) (Kouzes & Posner 2002). LPI evaluates leaders based on their performance of the best leadership practices. It has 30 leadership practice items, and for each item are 10 possible responses, from 'almost never' to 'almost always', and measures five main practices: Model the way (MTW), Inspire a Shared Vision (ISV), Challenge the Process (CTP); Enable Other to Act (EOA) and Encourage the Heart (ETH). The score for a given practice therefore can range from a low of 6 to a high of 60. The continuous variables were presented as a mean along with a standard deviation.

Results

The results suggest that Lithuanian public health officers evaluated their leadership practice positively. The total LPI score was 250.59±27.22 (maximum is 300). The best scores have been received for practices: MTW (52.87±5.05), EOA (51.83±4.65) and ETH (50.37±6.15). The lower scores were for the following practices: ISV (47.89±8.20) and CTP (47.63±7.96). However, we identified that LPI total and practices scores were higher among respondents with management background, comparing with CEOs without it.

Conclusions

The study results suggested that CEO's of Lithuanian public health institutions evaluate their leadership practice positively. However, we recommend to include leadership training activities into curriculum of public health schools and to ensure continuing post-graduate training in leadership for public health specialists.

The complexities of female leadership in healthcare

Stavroula Kalaitzi

S Kalaitzi, K Czabanowska
Department of International Health, Maastricht University, The Netherlands
Contact: valiakalaitzi@yahoo.gr

Background

The 21st century transformation of health care environment is driven by the need to reduce costs and improve quality. The healthcare changes require leaders with transformational leadership and competences to lead effectively towards the new setting. Research acknowledges that female leaders are transformational. Although females constitute a majority of health care workforce, there is a documented women leadership gap in higher echelons of healthcare organizations. Our goal is to identify the barriers experienced by female leaders in advancing their career in health care.

Methods

The Google Scholar, PubMed and Mendeley (the academic reference manager) were searched as part of an extensive literature review. The search was limited to publications in English, from 2000 to 20014, which featured theoretical and research studies, as well as reports. Such key words as: women, health care and leadership were used. The thematic content analysis was chosen to reflect the search for themes across the text on the basis of the content.

Results

The gender gap, persistent stereotypes, lack of female career advancement, networking, mentoring work/life balance, and leadership skills were identified as the most common barriers to the career advancement among female health professionals.

Discussion

The female leadership gap is clear and, there is an increasing demand for talented female leaders in top healthcare positions. The strategies which recommend to fill the void include: the implementation of leadership development programs focusing on gender diversity, networking and mentoring, adoption of corporate policies for increased percentage of female executive members and , flexible working environment. Today healthcare setting has to appreciate the value of gender diversity in leadership roles and to invest in the transformational leadership skills of women to lead effectively the fundamental changes in the field.

Leadership, Education and Training in Europe: Creating a Generation of Leaders for Public Health

Vesna Bjegovic-Mikanovic

V Bjegovic-Mikanovic[1], *E Jakubowski*[2], *B Gomes*[3]
[1]University of Belgrade, Faculty of Medicine, School of Public Health, Belgrade, Serbia
[2]WHO Europe
[3]Public Health Services, Northern Region Health Administration, Portugal
Contact: bjegov@med.bg.ac.rs

Public health (PH) leaders struggle to define and ensure universal access to public health services since public health systems are bewildering complex. The complexity of today's globalized world demands further investment in leadership skills and training. To tackle this issue, re-thinking pre-graduate, graduate and continuous professional education is paramount.

In the ASPHER surveys of 2012/13, European schools and departments of Public Health (SDPHs) from 38 countries assessed their best output to be in the field of health promotion, disease prevention and identification of priority health problems in the community, while they saw the least success in dealing with preparedness and planning for public health emergencies. Deficient leadership competences and performance, as assessed through all Essential Public Health Operations (EPHOs) of WHO-EURO, were particularly stressed by employers in 30 of the 44 European countries with regard to leadership skills: policy counselling, mobilizing human capital, emergency response, inter-team cooperation, and work with civil society.

An important finding of the surveys was the high consensus on what kind and level of knowledge and skills are required and provided to equip public health graduates for a successful professional career.

Developing partnerships for better capacity building of public health leaders at the European and global level was identified as a way forward. Examples are the academic and ministerial networks in South Eastern Europe with examples of good leadership practices, initiated by WHO-EURO.

Shared training opportunities will not only foster similar competence development but also create, from early on, routines for engagement of common challenges with the contribution of different perspectives.

Public health leadership is a tool for transformation - and it can be strengthened over time.

Public health leadership in international practice

Martin Mengel

M Mengel
Agence de Médecine Préventive, Paris, France
Contact: mmengel@aamp.org

Contemporary European public health leaders collaborate internationally as threats and challenges to public-health apply on a global scale. They need special leadership skills to help them work across organisational, cultural and disciplinary boundaries. One example of this is the African Cholera Surveillance Network (Africol) which works in eleven African countries to help prevent cholera epidemics. Africhol is led by graduates of the European Program for Intervention Epidemiology Training (EPIET) of the European Center for Disease Prevention and Control with experience of working and leading in international networks. We use a real-life example to describe the challenges it poses to lead a diverse international network towards a common goal and the necessary skills of professionals to effectively lead in this context.

Africhol, a project led by the Agence de Médecine Préventive has established cholera surveillance in eleven African countries. The aspired outcome of this consolidated effort is to establish inter-sectorial groups to fight cholera through an integrated strategy for detection and control of outbreaks, case-management, building infrastructure and leading public-health interventions that tackle environmental and population risk. For this, interaction of multiple diverse actors from different administrative-levels and backgrounds is necessary.

This example shows how the coordinated interaction of global and regional political and technical bodies and non-governmental organizations can generate impact in the field. Together, they can be important catalysts for the development and diffusion of evidence and greatly expedite the implementation of integrated, comprehensive disease prevention and control programs. Leading a diverse group of actors requires well-trained public-health professionals with a European and global perspective that can exert efficiently in strong international networks to tackle public-health problems.

8.E. Ferenc Bojan: Young investigator award session

Chair: Julian Mamo, Malta

Effects of a home based intervention carried out by trained layman on fear of falling in frail adults

Ali Kapan

A Kapan[1], S Haider[1], E Luger[1], K Schindler[2], C Lackinger[3], T Dorner[1]
[1]Institute of Social Medicine, Centre for Public Health, Medical University of Vienna, Austria
[2]Department of Internal Medicine III, Division of Endocrinology and Metabolism, Medical University of Vienna, Austria
[3]SPORTUNION Austria, Department for Health Promotion & Prevention, Vienna, Austria
Contact: ali.kapan@meduniwien.ac.at

Introduction

In older individuals, mobility and fear of falling (FOF) interact with each other. FOF leads to a decline of daily physical activity and quality of life, an increased risk of falling and a loss of self-confidence. The aim of this study was to assess the effects of a 12 week home-based intervention program carried out by trained lay ‘buddies’ on FOF in community dwelling (pre)frail older adults.

Methods

80 (pre)frail participants with an age of >65 years were included. The participants were randomly assigned to the intervention (IG) or control group (CG). In the IG strength training was performed twice a week, which comprised six strength exercises. Additionally, nutritional challenges for elderly people were addressed. The CG did not perform a nutritional intervention or physical training. At the beginning and after 12 weeks, FOF, using the Falls Efficacy Scale-International (FES-I) was assessed. The points of the FES-I were summed up and subjects could reach a score between a minimum of 16 points and a maximum of 64 points. For group comparison the T-Test was used. For changes over time, a mixed linear model was applied, where the interaction between group and time, controlled for age, sex and FOF at the beginning was analysed.

Results

86 % of the participants were female, the mean age was 83 years (standard deviation 8), 24% were older than 90 years. At the beginning, the mean value of the FES -I was 43 points (SD 10). People with a history of falls within the last 2 months had significantly more FOF (49 vs. 40 points, $p = 0.003$). There was a significant reduction of FOF in the IG from 44 to 39 points, when compared to the CG where there was no change (41 vs. 43 points $p = 0.014$).

Conclusion

The FOF in frail older persons is very high, in particular in those with a recent history of falls. By a 10–12-week intervention based on regular visits through buddies consisting of strength training and nutrition optimisation, FOF could significantly be reduced.

Key message

- A home-based nutritional and exercise intervention decreased fear of falling in (pre) frail older community dwelling persons after 12 weeks

Impact of Public Reporting on Clinical Outcomes in Healthcare: A Systematic Review and Meta-analysis

Vladimir Vukovic

V Vukovic, P Campanella, P Parente, A Sulejmani, W Ricciardi, ML Specchia
Department of Public Health, Università Cattolica del Sacro Cuore, Rome, Italy
Contact: vladimir.vukovic@rm.unicatt.it

Background

Public reporting (PR) has been recommended as a useful public health strategy for stimulating improvement of quality and reduce inequalities in healthcare (HC) by adding transparency and addressing accountability in the interaction between HC providers and users. The aim of this study was to perform a systematic review of scientific literature in order to assess qualitatively and quantitatively the impact of PR on clinical outcomes.

Methods

Literature search was performed by accessing MEDLINE, ISI Web of Science, SCOPUS, and Cochrane Library databases to identify studies that investigated the relationship between PR and clinical outcomes, published from 1991 to 2014. Meta-analysis was performed to assess the PR effect on overall mortality rate. Subgroup analyses were performed for different study design and setting.

Results

Twenty-seven studies that evaluated the effect of PR on clinical outcomes were included in the systematic review. The meta-analysis involved 10 studies with a total of 1,840,401 experimental and 3,670,446 control events and resulted in a RR of 0.85 (95% CI, 0.79–0.92), p for heterogeneity <0.01; $I^2 = 99.1\%$. In a subgroup analysis, six publications were included reporting mortality rates in the same facilities during different periods and a RR of 0.85 (95% CI, 0.76–0.94) was obtained with reported high heterogeneity ($p < 0.01$; $I^2 = 100\%$). When comparing different facilities that recorded mortality rates during the same period from four studies, a RR of 0.91 (95% CI, 0.85-0.97) was calculated, with heterogeneity $I^2 = 95\%$ ($p < 0.01$).

Conclusions

Meta-analysis reported a positive effect of PR on mortality, with reduced rates when combining data from the same facilities during different periods of PR, as well as for comparing different facilities that recorded mortality rates during the same period. The experiences descripted in this paper can represent a framework of opportunities for changing the relationship between HC providers and users.

Key message

- Transparency and accountability resulting from PR are key points in the process that make patients and citizens empowered protagonist of their care

Do people intend to have an active role in medical decision-making? The role of social resources

Anne Brabers

A Brabers[1], *J de Jong*[1], *P Groenewegen*[1,2], *L van Dijk*[1]
[1]NIVEL (Netherlands Institute for Health Services Research), Utrecht, The Netherlands
[2]Department of Sociology, Department of Human Geography, Utrecht University, Utrecht, the Netherlands
Contact: a.brabers@nivel.nl

Introduction

There is growing emphasis to include patients in medical decision-making (MDM). Still, not all patients are actively involved in MDM. It depends upon circumstances whether they are actively involved. Until now, research mainly focused on the influence of characteristics of the patient and the diagnosis on patients' preferences for active involvement. However, in examining this, a patient's social context also has to be taken into account as social norms, as well as social resources, affect individual behavior. We examined the influence of social resources - in the form of informational and emotional support - on the intention to have an active role in MDM.

Methods

In 2013, a survey was sent to members of the Dutch Health Care Consumer Panel (response 70%; n = 1,300). Questions were aimed at measuring the intention to have an active role in MDM, informational and emotional support. Patient characteristics (age, gender, educational level) were taken into account too. A regression model was constructed to explain the influence of informational and emotional support on the intention to have an active role in MDM.

Results

People who have more informational support from their social network are more likely to intend to have an active role in MDM. For low educated people emotional support positively influences their intention to have an active role in MDM. People with a middle and high level of education are more likely to intend to have an active role in MDM, no matter what level of emotional support. Finally, the older people are the less likely they intend to have an active role in MDM.

Conclusions

This study shows that social context influences the intention to have an active role in MDM. To enhance patient participation in MDM, it is recommended to examine how people without support from their social network can be supported. The provision of information (e.g. by a decision aid) or the use of volunteers who can give emotional support might have a role in this.

Key messages

- Informational support (for all people) and emotional support (only for low educated people) positively influence the intention to have an active role in medical decision-making
- To enhance patient participation in medical decision-making, it is recommended to examine how people without support from their social network can be supported

Electronic cigarettes efficacy and safety at 12 months: cohort study

Maria Elena Flacco

ME Flacco[1,2], *M Fiore*[3], *C La Vecchia*[4], *C Marzuillo*[5], *MR Gualano*[6], *G Liguori*[7], *G Cicolini*[8], *L Capasso*[1,9], *S Boccia*[10], *R Siliquini*[6], *W Ricciardi*[10], *P Villari*[5], *L Manzoli*[1,2,9]
[1]Department of Medicine and Aging Sciences, University of Chieti, Italy
[2]Local Health Unit of Pescara, Italy
[3]Department 'G.F. Ingrassia'- Hygiene and Public Health, University of Catania, Italy
[4]Department of Clinical Sciences and Community Health, University of Milan, Italy
[5]Department of Public Health and Infectious Diseases, Sapienza University of Rome, Italy
[6]Department of Public Health Sciences, University of Turin, Italy
[7]Department of Movement Sciences and Wellbeing, University Parthenope of Neaples, Italy
[8]Local Health Authority of Lanciano-Vasto-Chieti, Chieti, Italy
[9]'University G. d'Annunzio' Foundation, Chieti, Italy
[10]Institute of Public Health, Università Cattolica del Sacro Cuore, Rome, Italy
Contact: elena.flacco@gmail.com

Background

We carried out a multicentric cohort study to evaluate the safety and efficacy as a tool of smoking cessation of electronic cigarettes (e-cigarettes), directly comparing users of e-cigarettes only, smokers of tobacco cigarettes only, and smokers of both. Although the final results are expected in 2019, given the urgency of data to support policies on electronic smoking, we are reporting the results of the 12-month follow-up.

Methods

Adults (30-75 years) were included if they were smokers of >1 tobacco cigarette/day (tobacco smokers), users of any type of e-cigarettes, inhaling >50 puffs weekly (e-smokers), or smokers of both tobacco and e-cigarettes (dual smokers). Data were collected through direct contact and structured questionnaires by phone or via internet. Carbon monoxide levels were tested in a sample of those declaring tobacco smoking abstinence.

Results

Follow-up data were available for 236 e-smokers, 491 tobacco smokers, and 232 dual smokers (overall response rate 70.8%). All e-smokers were tobacco ex-smokers. At 12 months, 61.9% of the e-smokers were still abstinent from tobacco smoking; 20.6% of the tobacco smokers and 22.0% of the dual smokers achieved tobacco abstinence. Adjusting for potential confounders, tobacco smoking abstinence or cessation remained significantly more likely among e-smokers (adjusted OR 5.19; 95% CI: 3.35-8.02), whereas adding e-cigarettes to tobacco smoking did not enhance the likelihood of quitting tobacco and did not reduce tobacco cigarette consumption. E-smokers showed a minimal but significantly higher increase in self-rated health than other smokers. Non significant differences were found in self-reported serious adverse events (eleven overall).

Conclusions

Adding e-cigarettes to tobacco smoking did not facilitate smoking cessation or reduction. If e-cigarette safety will be confirmed, however, the use of e-cigarettes alone may facilitate quitters remaining so.

Key messages

- Adding e-cigarettes to tobacco smoking may not facilitate smoking cessation or reduction
- If e-cigarette safety will be confirmed, however, the use of e-cigarettes alone may facilitate quitters remaining so

The contribution of smoking to socio-economic inequalities in mortality in 13 European countries

Giorgia Gregoraci

G Gregoraci[1,2], FJ van Lenthe[1], F Peters[1], G Menvielle[3,4], CWN Looman[1], P Martikainen[5], R de Gelder[1], JP Mackenbach[1], for the DEMETRIQ consortium

[1]Department of Public Health, Erasmus MC, University Medical Center Rotterdam, The Netherlands
[2]Institute of Hygiene and Clinical Epidemiology, Department of Medical and Biological Sciences, University of Udine, Udine, Italy
[3]INSERM, UMR_S 1136, Pierre Louis Institute of Epidemiology and Public Health, Paris, France
[4]Sorbonne Universités, UPMC Univ Paris 06, UMR_S 1136, Pierre Louis Institute of Epidemiology and Public Health, Paris, France
[5]Department of Sociology, University of Helsinki, Helsinki, Finland
Contact: giorgia.gregoraci@gmail.com

Background

Smoking has been shown to be an important determinant of socioeconomic inequalities in mortality, but the extent to which its contribution has changed over time and has driven widening or narrowing inequalities in total mortality remains unknown. We therefore studied socioeconomic inequalities in smoking-attributable mortality and their contribution to inequalities in total mortality in 1990–94 and 2000–04 in 13 European countries.

Data and Methods

We collected and harmonized population-wide data on all-cause and lung-cancer mortality by age, gender, educational and occupational level in 13 European populations in 1990–94 and 2000–04. Smoking-attributable mortality was indirectly estimated using the Preston-Glei-Wilmoth method. All data were age-standardized using the European Standard Population.

Preliminary Results

Changes in the contribution of smoking to socioeconomic inequalities in mortality varied strongly by gender and region. Among men, absolute inequalities in smoking-attributable mortality as well as the contribution of smoking to inequalities in total mortality decreased over time in the majority of countries. Changing inequalities in smoking-attributable mortality also were an important driver of narrowing absolute inequalities in total mortality in the North, West and South of Europe, and of widening inequalities in total mortality in the East. Among women, inequalities in smoking-attributable mortality were in general much smaller than among men and in some countries even zero or reversed, but tended to increase over time.

Conclusions

In many European countries, smoking has become less important as a determinant of socioeconomic inequalities in total mortality among men. Contrary to common belief, tobacco control efforts may have contributed to a narrowing of absolute inequalities in mortality among men in many European countries. However, important challenges remain, particularly in the East and among women.

Key messages

- Smoking is becoming a less important determinant of inequalities among European men
- New tobacco control strategies are needed in order to contain the smoking epidemic among European women

8.F. Regular workshop: Health information in Europe. Quo vadis?

Organised by: BRIDGE Health
Contact: herman.vanoyen@wiv-isp.be

Chairs: Simona Giampaoli, Niek Klazinga

Despite statements indicating that health policy must be based on the best scientific evidence derived from sound data information and relevant research, the European Commission (EC) and its Member States (MSs) fail to set up an integrated health information system. With the exception of some specific domains such as infectious diseases, with the creation of the specialised agency ECDC, there is no global EU-wide public health monitoring system. Through different projects, the EC and MSs have invested in the development of health information related to the health of the population and more recently to the health systems. Although the project-driven approach is fragmented, it has led to success stories in the development of common, harmonised EU instruments such as health indicators, and health interview and examination tools. These projects have also demonstrated that there are large gaps and deficiencies that need to be overcome such as diversity of health service and health information structures in Europe; fragmentation of databases and registries; health information inequality, and lack of sustainability of health information structures. Projects come and go and after more than 20 years of project-driven investment lacking a holistic approach we are still without a structural and sustainable overarching public health monitoring infrastructure that provides policymakers at EU and MS level, and through them the EU citizens with the information needed to understand the health of the population and the way the EU health systems work. The Bridge Health (BRidging Information and Data Generation for Evidence-based Health Policy and Research) project brings together the main experts and their experiences of key projects of different past health and research frameworks in the domain of public health information. Bridge Health aims to create a blueprint for a European health information system and infrastructure. The resulting concept paper needs to be presented in a form that can serve as a draft agreement between the EC, MSs, candidate and EEA/EFTA countries and international organisations to decide on a EU-wide health information system infrastructure.

The EPH workshop reviews the strategic approach through presenting (1) overall and specific objectives and deliverables of Bridge Health; (2–4) the current status and challenges in some selected examples such as the EU injury surveillance platform, building upon administrative data to assess health systems performance, and summary measures of population health. The workshop will finally launch a discussion of the principle of ‘essential levels of health information’ as key element of potential structures and related governance mechanisms for a sustainable future EU health information system.

Key messages

- 20 years of project-driven investment in health information projects leaves the EU and its citizens without a structural and sustainable overarching public health monitoring infrastructure

- Information on population health and health systems is needed for transparent, cost-effective policies. Ignoring investment in a sustainable EU-HIS by EC and member states is no longer acceptable

BRIDGE Health: BRidging Information and Data Generation for Evidence-based Health Policy and Research

Petronille Bogaert

P Bogaert, H Van Oyen
Department of Public Health & Surveillance, Scientific Institute of Public Health, Brussels, Belgium
Contact: petronille.bogaert@wiv-isp.be

The objective of BRIDGE-Health is to create a European health information system (EU-HIS) infrastructure. The project bridges the best of the EU projects in domains of population and health system monitoring, indicator development, health examination surveys, environment and health, population injury and disease registries, clinical and administrative health data collection systems and methods of health systems monitoring and evaluation. BRIDGE-Health gives attention:

1. to enhance the transferability of health information and data for policy and improve the utility and use of data and indicators for stakeholders in policy making, public health surveillance and health care;
2. to reduce health information inequality within the EU and MS's;
3. to develop a blueprint for a roadmap for a sustainable and integrated EU Health information system by identifying key features among others: (a) method of standardization of health information gathering and exchange between population health and health systems information within and between Member States; (b) methods of standardization of data quality assurance systems; (c) methods of health information priority settings and (d) harmonization of ethic-legal issues.

Coordination, dialogue and interaction with the Commission Expert Group on Health Information, Eurostat, DG Research, MS's will ensure the sustainability of the work. The main outcome of BRIDGE Health is a concept paper, including scope, tasks, activities and governance structure, of a future EU-HIS System Infrastructure. The paper presents the strengths and limitations of a set of possible structures. The concept paper will be presented in a form that can serve as a draft agreement between interested Member States, candidate and EEA/EFTA countries and international organizations on the construction of a EU HIS infrastructure.

Injury Surveillance Platform

Ronan Lyons

R Lyons[1], S Turner[2], W Rogmans[3], R Kisser[4], B Larsen[5]
[1]Farr Institute, College of Medicine, Swansea University, Swansea, UK
[2]Public Health Wales NHS Trust, Cardiff, UK
[3]European Association for Injury prevention and Safety promotion, Amsterdam, The Netherlands
[4]National institute of Public Health, University of Southern Denmark, Copenhagen, Denmark
Contact: r.a.lyons@swansea.ac.uk

The Injury Surveillance Platform (ISP) is one of seven vertical BRIDGE-Health work packages. The objective is to expand and improve upon previous European Union (EU) investments in the Injury Data Base (IDB) and Joint Action on Monitoring Injuries in Europe (JAMIE) and integrating its activities within the horizontal work packages on the development of a European health information system (EU-HIS) infrastructure, creating a vibrant policy and prevention orientated network covering all EU member states (MS). All vertical work packages aim to improve the utility of data and indicators for stakeholders in policy making, public health surveillance and health care. ISP aims to: integrate data within the EU and across all MS's thus reducing health information inequality; contribute to standardization of health information gathering and exchange between population health systems, particularly in relation to valid measurement of incidence from sample hospitals/catchment areas (apparent 10x variation); and to standardization of data quality assurance systems based on developments during the JAMIE project. Experience gained through the distributed UK Farr Institute of Health Informatics Research will also inform the development of trustworthy data integration methodologies using centralized, federated or hybrid systems.

ISP involves annual uploads of quality controlled incidence and reference population data from participating countries, training events for National Data Administrators, an interactive web based support tool, and assistance in calculating Disability Adjusted Life Years and assessment injury related inequalities data use for policy purposes.

Building upon administrative data to assess Health Systems Performance

Enrique Bernal-Delgado

E Bernal-Delgado, S García-Armesto, F Estupiñán
Institute for Health Sciences in Aragon. IIS Aragón, Zaragoza, Spain
Contact: ebernal.iacs@aragon.es

The European health care roadmap is set upon three pillars: strengthening health-care effectiveness, increasing accessibility and improving resilience. On top of the EU instruments foreseen to reach those goals, is the assessment of health systems' performance (HSPA) and the routinely use of existing health information systems.

ECHO, the European Collaborative for Healthcare Optimization (www.echo-health.eu), largely aligned with this agenda, has provided abundant insight on how to use administrative data to inform unwarranted variations in health care performance in a small sample of EU countries. ECHO findings have informed decision-makers about in- and cross-country differences in equitable access to healthcare services, uneven effectiveness, quality and safety, and unequal efficiency.

Building upon lessons from the ECHO project, WP10 team within BRIDGE-Health aims at providing insight on how to build a Europe-wide knowledge infrastructure based on administrative data sources meant to analyse healthcare systems.

Stemming from the analysis of in-country sources (e.g. hospitalizations, demographic information, socioeconomic data, supply features, etc.), we will elaborate a common meaningful information dataset (i.e. data harmonization and comparable performance indicators), exploring the linkage or integration of individual-level administrative data sources (i.e. analysing key variables and units of analysis), and producing a technical report including core elements in the development of a data infrastructure - data model, including data protection issues (i.e., privacy by design), data quality features (e.g. coverage, coherence, relevance, internal reliability and accuracy), technical elements (e.g. distributed or centralized schema, database management solutions, ..).

Furthermore, we will also evaluate whether the use of administrative data in Health System Performance Analysis across Europe entails data inequality barriers that should require specific policies.

Monitoring and reporting trends and gaps in life and health expectancies throughout the European Union

Jean-Marie Robine

JM Robine
Institut National de la Santé et de la Researche Medical, Paris, France
Ecole Pratique des Hautes Etudes, Montpellier, France
Contact: jean-marie.robine@inserm.fr

EHLEIS (European Health and Life Expectancy Information System) is one of the first experiences, although quite limited, of common health information system developed and maintained by the Members States (MSs). EHLEIS has been producing annual health expectancy country reports since 2008 for each MS. The last issues published in April 2015 present the values for 2012 allowing trends in health expectancies to be monitored over a period starting in 2004 (i.e., 9 annual estimates) for the first countries contributing to EU-SILC (Statistics on Income and Living Conditions). The key words for EHLEIS are summary measures of population health, monitoring, interpreting trends and gaps, analysing drivers, building capacity throughout the EU, health information inequality and reporting and translation of information to policy makers. EHLEIS has tackled successfully the health information inequality and involves country correspondents in all MS's at each step of the process. Calculation and draft reports are prepared by EHLEIS but interpretation and translation to policy are made in collaboration with country correspondents who can add additional pages to the country report. In that sense EHLEIS is really a common, i.e., a shared information system, and a possible model of capacity building to fill the health information gaps among the MSs. In details countries contribute to (i) quality control (monitoring the translation and wording of the health questions in EU-SILC), (ii) analyses (interpreting trends and gaps, drafting supplementary national pages), (iii) reporting (translation, posting on the web and developing introduction pages) and (IV) translation of the information to policy use.

Does a coherent and sustainable European health information infrastructure really matter? Question marks and policy options

Fabrizio Carinci

F Carinci
School of Health Sciences, University of Surrey, Guildford, Surrey, UK
Contact: f.carinci@surrey.ac.uk

Across the last twenty years, the European Union funded a stream of initiatives in the broad field of public health to support the establishment of thematic networks. The most representative experiences of this kind have been now united under the common banner of the Bridge Health Consortium, whose constituents promise to provide the basis for a common EU health information system.

Does a coherent and sustainable health information infrastructure really matter? So far, neither the European Commission nor Member States have explicitly provided their support for the endeavour.

On the other hand, there seems to be broad consensus that Europe needs improved information exchange and increased availability of standardized indicators.

Research networks may provide core responses to methodological challenges, but smart policy options are indeed necessary to convince decision makers that a common system is reciprocally advantageous and can be efficiently realized.

In this presentation, we will provide the theoretical foundations for such an emerging discussion. Drawing inspiration from a recent conceptual paper, the presenter will introduce the principle of 'Essential Levels of Health Information' as a key element of a potential future architecture. Building upon a targeted taxonomy of methodological issues, the presenter will introduce relevant policy options and action lines that can be outlined for the future activity of the European Commission in the field of health information.

The presentation will explore alternative governance mechanisms aimed at improving the coordination of efforts, eg the plan of a European Research Infrastructure Consortium, its connection to various EU institutions, and the need of improved multidisciplinary collaboration between population health and health care quality experts.

8.G. Oral presentations: Evidence of best public health practice

The Italian Network for Evidence Based Prevention: a new tool for decision making in Public Health

Antonio Giulio de Belvis

AG de Belvis[1], F Faggiano[2], A Baldasseroni[3], M Cerbo[4], M Tanzariello[1], S Bucci[1], A Federici[5], F Cipriani[6], W Ricciardi[1]
[1]Section of Hygiene - Institute of Public Health, Faculty of Medicine, Università Cattolica del Sacro Cuore, Rome, Italy
[2]Departement of Translational Medicine, Università degli Studi del Piemonte Orientale - Amedeo Avogadro, Novara, Italy
[3]Tuscany Regional Center for Occupational Injuries and Diseases, Florence, Italy
[4]Innovation and Development Area, Agenas, Rome, Italy
[5]General Direction of Prevention, Ministro della Salute, Rome, Italy
[6]Tuscany Regional Agency of Healthcare, Florence, Italy
Contact: debelvis@rm.unicatt.it

Introduction

In Italy, the ongoing devolution of responsibilities from central Government to the Regions, requires that the National Prevention Plan (NPP) ought to be implemented by each Region through local planning tools. The NPP provides a comprehensive framework for public health activities, since it includes all the major domains of health promotion and disease prevention within a single national program.

For the first time in Europe, a Ministry of Health required to a research network, called NIEBP, to proactively provide to Regions evidences on the most effective interventions on health promotion and prevention.

Methods

A matrix was realized by crossing NPP's risk factors and target populations (i.e. children/adolescents; adults; ancients; at risk; general). For each cross, evidences (i.e. national and international guidelines; systematic reviews; primary studies) were searched on institutional web sites and scientific search engines (e.g. Cochrane Library). Evidences, that fulfill selection criteria a priori stated, were considered and ordered in the most appropriate format according to NIEBP rules, stated in specific handbooks.

Results

About 230 products were realized and collected on an institutional free access website (http://niebp.agenas.it). Available products are: national guidelines, in their original version; quick reference guides, as summary of international guidelines; quick summary reviews, as summary of systematic reviews. For each cross, more than a product should be available. Some crosses are not yet completed because the NIEBP is still working.

With four months left to the opening of the website many accesses were registered. The most searched topics were tobacco smoke and physical activity.

Conclusions

As in most case we can assume that public health policies are based on the best available evidence on efficacy of programs that that can affect large populations and to build capacity.

Key messages

- Because of the lack of resources, only effective prevention programs should be implemented. New tools are needed to provide evidences on the most effective Public Health interventions
- Given the devolution of responsibility in the Italian healthcare sector, the availability of a free and user friendly national website should reduce differences among regional preventive policies

The cost-effectiveness of the colorectal cancer screening programme in Flanders (Belgium)

Lore Pil

L Pil[1], M Fobelets[2], K Putman[2], L Annemans[1]
[1]Department of public health, Ghent university, Ghent, Belgium
[2]Faculty of medicine and pharmacy, Vrije Universiteit Brussel, Brussels, Belgium
Contact: lore.pil@ugent.be

Background

Colorectal cancer (CRC) is one of the leading causes of cancer death in Belgium. Because of the high morbidity and mortality associated with CRC, this cancer type has been shown to bring along high medical and non-medical costs. In Flanders, Belgium, since 2013 a population-based colorectal screening programme with biennial immunochemical feacal occult blood test (iFOBT) in women and men aged 56–74 has been organised. However, up to now no study has examined the societal impact of the population screening programme over the past years in Belgium in terms of costs and health effects. This study analysed the cost-effectiveness of the CRC population screening programme in Flanders.

Methods

A health economic model was developed consisting of two parts, namely a screening decision tree and a Markov model simulating natural progression. Over a period of 20 years, assuming a societal perspective, costs, predicted mortality, and quality-adjusted life-years (QALYs) with and without the screening programme were calculated in order to determine the incremental cost-effectiveness ratio (ICER) of screening. Adverse effects of false-positive results on the quality of life were included in the calculations. The model was populated with Flemish screening data and published literature related to cost and epidemiology of cancer. Sensitivity analyses were conducted to take into account uncertainty in the model parameters.

Results

Results of the analyses showed that the CRC screening programme is cost-effective in Flanders with an ICER of €1,277/QALY (95%CI: −€3,461 – €5,397) in males and €5,397/QALY (95% CI: €260 – €25,847) in females. Mortality reduction over a period of 20 years was 21% (95% CI: 16%-24%) in males and 15% (95% CI: 12%-18%) in females. Sensitivity analyses identified the test-characteristics of the iFOBT to be the most influencing parameters, but in all cases screening remained cost-effective.

Conclusions

This health economic analysis has weighted the advantages and disadvantages of organised CRC screening and has shown that despite the possible adverse effects of screening, the population-based screening programme for CRC in Flanders is cost-effective and should be maintained.

Key messages

- This study showed that the CC cancer screening programme organised in Flanders is effective and cost-effective. Policy makers should continue implementing the colorectal cancer screening programme

Ultrasound screening for abdominal aortic aneurysm: a systematic review

Milly Schröer-Günther

J Kreis[1], S Sturtz[1], D Gechter[1], RT Grundmann[2], V Gorenoi[3], A Hagen[3], S Sauerland[1]
[1]Institute for Quality and Efficiency in Health Care, Cologne,Germany
[2]Burghausen, Germany
[3]Hannover Medical School Hannover Germany
Contact: milly.schroeer-guenther@iqwig.de

Introduction

In November 2013 the German Institute for Quality and Efficiency in Health Care (IQWiG) was commissioned by the Federal Joint Committee (G-BA) to systematically assess ultrasound screening for abdominal aortic aneurysm (AAA).

Methods

Studies were searched for in MEDLINE, EMBASE and CENTRAL (search date: 15th of January 2014). Eligible studies were randomized controlled trials (RCTs) comparing ultrasound screening versus no screening in persons without known AAA. These RCTs had to investigate patient-relevant outcomes (e.g. all-cause-mortality as well as AAA-related mortality and morbidity). Two reviewers independently assessed study eligibility and risk of bias. The risk of bias was assessed for each study and outcome applying standard methodological quality criteria. If feasible, data were pooled by meta-analyses using odds ratios (ORs) or Peto ORs as effect measures.

Results

A total of 4 eligible RCTs investigating 137,184 patients aged over 65 years were identified. 93.2% of the patients were male. Long-term data (13–15 years of follow-up) were only available for men; data for women were largely only available for up to 4–5 years. The risk of bias was assessed as high in one study and as low in 3 studies (except for one outcome). In men, AAA screening was associated with a statistically significant decrease in all-cause mortality, AAA-related mortality, AAA-rupture, and AAA-related emergency surgery. As expected, screening was also associated with a statistically significant increase in AAA-related elective surgery. In women, no statistically significant effects were found. Data on quality of life were only available in 2 studies and were unusable; no data on psychosocial aspects were identified.

Conclusions

Data from 4 RCTs with a largely low risk of bias indicate that in men, ultrasound screening for AAA is associated with a statistically significant decrease in all-cause mortality, AAA-related mortality, AAA-rupture, and AAA-related emergency surgery. No such evidence is available for women, not even for female smokers aged over 65 years, who seem to have an increased prevalence of AAA. The Federal Joint Committee will consider the results of the present systematic review when deciding on the implementation of ultrasound screening for AAA in the German healthcare system.

Key message

- In men we found statistically decrease in mortality, AAA-related mortality, rupture, emergency surgery and an increase in elective surgery. In women no statistically significant effects were found

Bio-removal of estrogenic activity in municipal wastewaters

Tiziana Schilirò

T Schilirò[1], F Spina[2], C Cordero[3], T Ridolfo[1], C Bicchi[3], GC Varese[2], G Gilli[1]
[1]Department of Public Health and Pediatrics, University of Torino, Torino, Italy
[2]Department of Life Sciences and Systems Biology, University of Torino, Torino, Italy
[3]Dipartimento di Scienza e Tecnologia del Farmaco, University of Torino, Torino, Italy
Contact: tiziana.schiliro@unito.it

Endocrine disrupting chemicals (EDCs) have become a major issue due to their ability to interact with human estrogenic receptors. European Union has prioritized the reduction of surface-water pollution by municipal and industrial wastewaters, so as to limit the presence of harmful chemicals, including EDCs, in the water cycle (Directive 2000/60/EC).

This study investigates the estrogenic activity in effluent water samples from a municipal wastewater treatment plant (WW1: effluent after primary sedimentation; WW2: final effluent), both before and after a laccase mediated treatment from Trametes pubescens MUT 2400. The breakdown potential of laccases against both estrogenic activity and several micro-pollutants already recognized EDC was analyzed by to two in vitro tests (the human breast cancer cell line, MCF-7

BUS, proliferation assay, or E-screen test, and the luciferase-transfected human breast cancer cell line, MELN, gene-reporter assay) to measure the 17b-estradiol equivalent quantity (EEQ) and by Stir Bar Sorptive Extraction-GC-MS respectively.

Laccases were extremely active towards all the target compounds, both in term of removal yields and rate: the mean percentage of removal was 73 ± 12% in WW1 and 61 ± 17% in WW2 and the difference before and after laccase treatment was statistically significant ($p < 0.01$). The mean percentage of estrogenic activity removal, considering both tests, varied between 87% and 95% and the difference before and after treatment was statistically significant ($p < 0.01$) for both of the two tests. In the final effluent the mean maximum estrogenic activity after laccase treatment was 0.76 ± 0.66 ng/L highlighting that this estrogenic bio-removal allowed to reach a low environmental risk because in this way estrogenic substances are deposited into the river via WWTP at concentrations lower than those at which chronic exposure has been reported to affect the endocrine system of living organisms.

Key messages

- Fungal laccases mediate an effective decrease of the estrogenic activity in wastewater treatment plant effluents
- The most appropriate way of detecting EDCs in water environments requires an integrated approach through the use of effect-based tools

Assessment of communicable disease prevention and control systems in the EU enlargement countries

Edoardo Colzani

E Colzani, G Fraser, A Economopoulou, F Hruba, BA Suski, M Kokki
European Centre for Disease Prevention and Control (ECDC), Stockholm, Sweden
Contact: edoardo.colzani@ecdc.europa.eu

Issue/problem

European Union's (EU) enlargement countries need to meet essential public health system requirements to gain accession to EU. Several approaches for the assessment of a national public health system for the prevention and control of communicable diseases have been proposed, however no standard methodology has been agreed upon. The European Centre for Disease Prevention and Control has developed an assessment methodology and tested it in four EU enlargement countries in the period 2011–14.

Description of the problem

Six different domains of technical evaluation were identified: health governance; human resource capacity development; surveillance; preparedness for and response to public health emergencies; national system of public health microbiology laboratories; disease programmes. A self-administered questionnaire was developed according to the best available standards in the prevention and control of communicable diseases. Country field visits carried out by teams of experts complemented information stemming from the questionnaire.

Results

Areas for improvement were: full adoption of EU case definitions; sustainability of epidemiologists workforce; strengthening the infrastructure; capacity of local epidemiological units; development of national communicable disease emergency plans and guidelines for outbreak investigations; integration of national laboratory reporting system with epidemiological surveillance system; adequate operational implementation of national disease programmes.

Lessons

This is the first attempt to assess the needs of a country in order to fulfil EU acquis concerning prevention and control of communicable diseases. It is an important chance to offer support and identify opportunities for improvement of enlargement countries' national health systems in the area of communicable diseases. A follow-up plan concerning the recommendations provided and the feedback from the countries will be carried out.

Key messages

- The European Centre for Disease Prevention and Control developed an assessment approach of national systems for control and prevention of communicable diseases in EU enlargement countries
- Several areas for improvement were identified and this assessment can be used as an opportunity for national health systems in the area of communicable diseases

Smoking cessation and weight gain: are changing health behaviours explanatory?

Jing Tian

J Tian[1], S Gall[1], P Otahal[1], K Smith[1], T Dwyer[1,2], A Venn[1]
[1]Menzies Institute of Medical Research, Univeristy of Tasmania, Hobart, Tasmania, Australia
[2]The George Institute for Global Health, University of Oxford, Wellington Square, Oxford, UK
Contact: J.Tian@utas.edu.au

Background

Quitting smoking leads to weight gain, but the magnitude varies and the underlying mechanism is poorly understood. We aimed to quantify weight gain after quitting and the difference in weight gain between quitters and continuing smokers using a meta-analysis, and explore whether this difference was mediated by changing health behaviours in a cohort study.

Methods

Meta-analysis: Five electronic databases were searched prior to Jan 2015. Population-based cohort studies were included if they reported weight change from baseline to follow up (>3 months post-quit) in adults.

Cohort: A cohort of 238 smokers (aged 26–36) reported demographic and lifestyle data at baseline (2004–06) and follow-up (2009-10). Potential mediators of weight change were changes in breakfast consumption, 'discretionary' foods (serves/day), fruit and vegetables (serves/day), alcohol (g/day), takeaway food (serves/week), diet quality score (DQS), leisure time physical activity (LTPA, mins/week), total PA (mins/week), time spent sitting (mins/day) and TV viewing (hours/day).

Results

Meta-analysis: A total of 35 studies were identified including 63,403 quitters and 388,432 continuing smokers. The mean weight gain was 4.10kg (95%CI 2.69–5.51) and BMI gain was 1.14kg/m2 (95%CI 0.50–1.79) among quitters. Compared to continuing smoking, quitting was associated with gains in weight (pooled mean difference (PMD) 2.61kg, 95%CI 1.61–3.60) and BMI (PMD 0.63kg/m2, 95%CI 0.46-0.80).

Cohort: Relative to continuing smokers, quitters consumed less discretionary foods ($p = 0.001$), alcohol ($p = 0.022$) and takeaway food ($p = 0.081$); had a higher DQS ($p = 0.007$); less often skipped breakfast ($p = 0.092$); watched less TV ($p = 0.083$) but spent more time sitting ($p = 0.080$) at follow-up. Adjustment for changes in these behaviours made little difference to the magnitude of post-cessation weight gain.

Conclusions

Smoking cessation is associated with weight gain of 2.6kg; however, it was not explained by worsening health behaviours.

Key message

- Smoking cessation leads to 2.6kg weight gain, which was not readily explained by changing health behaviours. Investigation of other mechanisms, such as metabolic factors, is needed

8.H. Regular workshop: Health impacts of welfare policy during recession and austerity in Europe

Organised by: Department of Sociology, University of Oxford
Contact: rachel.loopstra@sociology.ox.ac.uk

Chairs: Rachel Loopstra, Aaron Reeves

This workshop will explore the impacts of social welfare policies on health during the recession and austerity across Europe. The impacts of The Great Recession on health have been debated, with some evidence that suicides and infectious disease rates have risen, while other data suggest little impact on health. To inform this debate, it is important to consider the role of social welfare policies in exacerbating, mitigating or modifying the impacts of economic downturn.

This workshop will bring together researchers who are considering the complex causal pathways linking recession and health. Each of the presentations will explore different entry points at which policy may exacerbate or protect people during hard times. Bringing these papers together allows these researchers to discuss with the other participants the challenges of identifying causality in these types of study and, in terms of advocacy, where public health professionals/academics should direct our attention.

In the first two papers, two mediators of the impact of recession on health are examined: compromised nutrition and unmet medical needs. The extent to which countries in Europe experienced rising food hardship and unmet medical need through the economic crisis have varied. While in part driven by the extent to which countries experienced economic downturn, these papers identify that this does not inevitably result in deprivation, but that the effects of unemployment and income loss depend on the levels and types of social protection and healthcare provision in place.

In the next paper rising housing arrears in Europe is examined, a key consequence of the economic crisis. The paper identifies a significant negative impact on health with cross-country variation in links between housing arrears and health, suggesting the impact of housing arrears can be modified by country-specific conditions. Evidence suggests that the housing characteristics of a country, such as ownership rate, are particularly important.

In the last paper, the impact of a specific austerity policy, restricting eligibility for disability benefits , on health is examined. One way countries have intended to reduce public spending is to reduce the disability benefit caseload by requiring claimants to undergo stricter medical assessments. This paper shows how the policy has failed to move people into work, but also has been associated with rising suicide, antidepressant medication use, and rising mental illness.

Format: each presenter will give a 15 minute oral presentation followed by a brief period of questions for clarification. The last 20 minutes will be reserved for wider discussion of common paper themes.

Key messages

- This workshop brings together a range of research identifying different ways that welfare policies can help or harm during economic crises, facilitating broader discussion and debate.
- Through exploring connections between welfare policy and health, this workshop opens discussion on the role public health could have in advocacy during economic crises.

A cross-country analysis of within-country change in food hardship in Europe, 2005–2012

Rachel Loopstra

R Loopstra, A Reeves, D Stuckler
Department of Sociology, University of Oxford, Oxford, UK
Contact: rachel.loopstra@sociology.ox.ac.uk

Background

Since the recession, more people have sought food aid in Europe, raising questions about hunger's magnitude and health consequences. How much food hardship has risen and what is driving it have not been identified. We examine within-country food hardship trends from 2005 to 2012, its association with unemployment and falling incomes, and how social protection may prevent it during recession.

Methods

Eurostat data on food hardship, GDP, unemployment, average wages, and social spending per capita were compiled for 21 EU countries. The excess in food hardship since 2009 over and above historical trends was quantified using regression models. Next, cross-country difference models were used to test how annual changes in GDP, unemployment, and wages related to food hardship changes. Interactions of the level of social spending on the relationships between unemployment and wages with food hardship were examined.

Results

After a steady decline in food hardship from 2005 to 2009, the trend reversed. Since 2010, food insecurity was 2.71 percentage points (95% CI: 0.56% to 4.85%) greater than expected based on the previous trend. For every one percentage point increase in country-level unemployment, there was a 0.42 percentage point rise in food hardship (95% CI: 0.14 to 0.71). Each $1000 decrease in annual wage was associated with a 0.29 rise (95%CI: 0.018 to 0.56). GDP was not significantly related. Social spending, particularly on unemployment, social exclusion, and housing, had significant effects on associations of food hardship with unemployment and wages. Where there was high social protection, associations were not detected. As a falsification test, we found no evidence that social spending on pensions modified unemployment or annual wages' effect on food hardship.

Conclusions

The rise in food hardship across Europe was linked to unemployment and falling wages, but social protection mitigated this link.

Unmet health need and unemployment during recession in Europe

Joana Lima

J Lima, A Reeves, D Stuckler
Department of Sociology, University of Oxford, Oxford, UK
Contact: joana.lima@wolfson.ox.ac.uk

Background

The economic crisis took its toll on access to healthcare services in the EU. Unmet health need declined until the late 2000s, but the trend reversed in 2008. With unemployment at unprecedented levels in the EU, we hypothesize that the unemployed are driving this reversal and that losing employment leads to unmet health need. Furthermore, in a context of shrinking unemployment benefits and increased co-payments to access healthcare, we posit that this effect is exerted via financial hardship.

Methods

We used fixed effects logistic regression to analyze EU-SILC longitudinal data in 25 EU countries following over 350 000 individuals from 2008 to 2010. The survey captures changes in employment, deterioration of household financial situation and unmet health need. To test our hypothesis, we use a nested model to examine the effect of the addition of financial strain on the relationship between unemployment and unmet health need.

Results

Controlling for sociodemographic characteristics, unemployment was associated with a 1.51 increase in the odds of an individual having unmet health need (95% CI: 1.27 to 1.80).

This association became weaker after financial hardship was added to the model, suggesting that financial hardship is in part mediating the effect of unemployment on unmet need. Furthermore, introducing country dummies weakened the effect, suggesting that there are moderating factors at the national level, likely related to the welfare state, that break or strengthen the association.

Conclusions

The negative effects of unemployment on access to healthcare are not inevitable but likely to be mediated by loss of income diverted from health to sustain the household. This is especially true when financial barriers - increased co-payments - are increasing and benefits for the unemployed are decreasing. Further research will identify country-level social protection and health policies that disassociate unemployment from unmet health need.

The impact of housing arrears on health during the recession: A comparison of European nations

Amy Clair
Department of Sociology, University of Oxford, Oxford, UK
Contact: amy.clair@sociology.ox.ac.uk

Background

Although the recent Great Recession had its origins in the housing sector, the short-term health impact of housing debt is not well understood. We used longitudinal data to evaluate the impact of housing arrears on health, considering alternative modifying factors and comparing home-owners and renters in 27 EU nations.

Methods

Multi-level models were applied to a retrospective cohort from the EU Statistics on Income and Living Conditions of employed persons without housing debt in the year 2008 (n = 45,457 persons, 136,371 person-years). Models tested the effect on self-reported health of transitioning into housing arrears adjusting for age, sex, baseline health, and disaggregated by owner and renter status. Country-level information such as home-ownership and interest rates were also considered.

Results

Housing arrears were negatively associated with self-reported health (−0.12, 95% CI −0.08 to −0.16), a greater impact than that for job loss (−0.09, 95% CI −0.07 to −0.11) although confidence intervals do overlap. The magnitude of the association varied across Europe, with home-ownership rate, country level arrears rates and economic factors emerging as the greatest contributors to this variation.

Conclusions

Housing arrears is a significant risk factor for poorer self-reported health, with specific impacts dependent on tenure status and country factors suggesting that negative impacts can be minimised.

'First, do no harm': The mental health impact of restricting eligibility requirements for disability benefits in the UK

Ben Barr

B Barr, D Taylor Robinson, M Whitehead
University of Liverpool, Liverpool, UK
Contact: benbarr@liverpool.ac.uk

Background

Many European countries have introduced more restrictive assessments to determine eligibility for disability benefits. Most countries have applied these to new claimants; the UK and the Netherlands have gone further - reassessing their entire caseloads. In the UK, doctors and disability rights groups have raised concerns that this has adversely affected the mental health of claimants. There are no previous studies assessing the health effects of this policy.

Methods

We used multivariable regression to investigate whether variation in the proportion of the population experiencing reassessment across 149 local government areas in England between 2010 and 2013 was associated with local trends in suicides, mental illness and antidepressant prescribing, whilst adjusting for other factors known to influence trends in mental ill-health.

Results

Each additional 10,000 people reassessed in each area was associated with an additional 7 suicides (95%CI: 2 to 13), 2,368 additional cases of mental illness (95%CI: 450 to 4,286), and the prescribing of an additional 6,743 antidepressant items (95%CI 3,563 to 9,922). Effects were greatest in the most deprived areas of the country, widening health inequalities.

Conclusion

The programme of reassessing people on disability benefits was associated with an increase in suicides, mental illness and antidepressant prescribing.

8.I. Late Breaker Session

Organised by: EUPHA

8.K. Round table: Themes for Integrated Study of Care Changes to Support Older People with Multiple Chronic Conditions

Organised by: Loughborough University, UK
Contact: d.i.keeling@lboro.ac.uk

Chair: Johan Hansen

Issue

Across Europe the age and morbidity of the population is changing. More persons survive into older age with multiple chronic diseases and ageing effects, but finance and workforce size remain constrained. Whilst health and social care remain fragmented, citizens expect an integrated service. European (and individual states) initiatives exist to address chronic disease management, but the unmet need is to review holistic integrated care for patients with multiple conditions and an overlay of conditions of ageing.

Problem

Efforts to address this problem often focus on single issues (e.g., remote monitoring of single diseases, or collaborative working methods). Pilot studies and local innovations have value, but are artificial and may not endure. Integrated study is needed, starting with actual presenting need, to prepare the ground for paradigm shifts in outmoded practices.

Value

This workshop is a result of recently submitting a Horizon 2020 proposal on this subject, the outcome of which will be known in September 2015. It will either present this as a topical first introduction of the project (if it has been approved in September) or as a means of stimulating interest in finding collaboration opportunities to further this vision. In either event it provides space to consider component strands of this integrated research concept on a major public health policy issue looking at a paradigm shift in care for older people with chronic conditions combined with ageing, and the support of their carers.

Structure

The roundtable starts with five brief linked presentations indicating some critical lenses on the problem:

1. Understanding and serving 'Mary' - a case study illustrates the real and complex issues patients face in ageing and co-morbidity (Prof Michael Rigby)
2. New understandings of patients and carers as people - the ethical imperative to address the connectivity between patients and their carers (Dr Els Maeckelberghe)
3. Realigning from health problems to service provision - a service perspective on understanding and integrating multiple views on the value of care (Dr Debbie Keeling)
4. Effecting meaningful change - the role of active recognition and balancing of different values and norms in policy change success (Dr Peter Schröder-Bäck)
5. Affordability and Sustainability - the main issues in evaluating the economic and financial effects of integrated care provision (Dr Daniela Luzi)

The presentations will be purposefully challenging to stimulate debate and will pose core questions. A moderated discussion involving the panel and audience will follow chaired by Dr Johan Hansen.

Outcome

All participants will be tasked with agreeing the main points of harmony and conflict between stakeholders (and associated systems) in achieving a vision of integrated care based on people's actual needs. This will feed into a new Horizon2020 study (if approved in September 2015), or otherwise seek means of establishing forward collaboration.

Key messages

- Integrated care needs study of multiple lenses such as patients' real needs, carer-patient connectivity, new values in service design, balancing of diverse values and norms and robust economic models
- Successful policy change needs to start with actual personal needs for health support combining chronic disease, ageing process and social isolation, matched to societal acceptance of new concepts

Understanding and serving 'Mary' - a real world case study of ageing and co-morbidity

Michael Rigby

Michael Rigby
Dublin City University, Dublin, Ireland
Contact: michael.rigby@dcu.ie

Mary is a 79 year old widow living alone. Her next of kin - a stepson and a niece - each live 90 minutes away. The neighbours either side of her are couples aged over 70; in each case the husband has cancer.

Mary has arthritis, making walking and cooking difficult. She has a digestive problem, for which she has medication. She also has a mitral valve leakage, for which the cardiologist is reluctant to take interventionist action. In the last three years Mary has had small mental lapses, which may be TIAs.

Her medical care is in silos. Her GP will not interfere with the actions of hospital consultants, and there is nothing he feels he can cure. He signs prescriptions for repeat medications, based on the hospital prescriptions. The cardiologist sees Mary periodically to make sure her heart condition does not worsen. The orthopaedic surgeon is unsure what to do about the arthritis, so he too restricts his action to medication. The neurologist does not have a diagnosis for the TIAs. The hospital geriatrician sees Mary every six months, primarily to harmonise the treatment lines within the hospital.

Mary is on multiple medications. She claims she takes all this as prescribed, but this is untrue - she is spasmodic and varies intake.

The community nurse calls once a month. The most useful thing the nurse does is arrange annual respite care for a fortnight, where the regular diet and general care boost Mary. For a while she visited a day centre three days per week, but this often clashed with her hospital appointments and she found it stressful to rearrange them. Mary's home care for meals and washing is not coordinated with health care.

Mary does not need to be in an institution, but the services given her are not coordinated, and monitoring is conducted by the elderly neighbours with their own health problems; they have no support if they are worried except the emergency services. Mary is a real test of modern society and its health support delivery.

New understandings of patients and carers as people - an ethical imperative

Els Maeckelberghe

ELM Maeckelberghe
University Medical Center Groningen, University Groningen, Groningen,The Netherlands
Contact: e.l.m.maeckelberghe@umcg.nl

As the numbers of older persons (and with managed chronic diseases) increases rapidly, so will the number of people involved in caring, as the case of Mary illustrates. This is both a threat and a challenge to understanding and upholding the generally accepted ethical principle of respect for autonomy of patients. I will argue that we need to broaden the traditional ethical framework in addressing the connectivity between patients and their carers.

We first need a new understanding of what it means to be elderly and dependent. Vulnerability is often understood as an inescapable dimension of life, but its meaning in healthcare is unclear. In gerontology, the concept of frailty is used. The degree of frailty reflects overall functional capacity, which is dependent on many factors, including social and psychological functioning and thus 'self-management capabilities'. We will discuss the meaning of autonomy in the context of frailty, vulnerability and care dependency in elderly persons. In what way is Mary frail, vulnerable, dependent?

Secondly, we need to understand the position of informal carers (Mary's stepson, niece, neigbours) who are partners in the (virtual) support team. These carers can be described as 'dependency workers' (Kittay 1999) - they support someone who is dependent upon them, but this dependency in turn makes them vulnerable, and thus in need of 'care for the carer'. Formal agencies, and related records, need to develop ways of identifying the needs of these 'dependency workers' for respect and support. We need to remedy for the fact that informal carers are not only a resource and a team member but also persons with consequent needs and rights in their own respect. We will need to assess the accumulation of responsibilities many informal carers face (Mary's neighbours keeping an eye on her and at the same time caring for their own partner).

Kittay EF (1999) Love's Labor - Essays on Women, Equality, and Dependency. New York, Routledge.

Realigning from health problems to service provision in integrated care

Debbie Keeling

DI Keeling, A Laing
School of Business and Economics, Loughborough University, Loughborough University, UK
Contact: d.i.keeling@lboro.ac.uk

Digital technologies are changing the face of healthcare. These have allowed organisations to transform service provision through the integration of such technologies into service delivery processes. For the patient, informal carers and their families and friends, such technologies have allowed unprecedented access to information on formal service performance (and hence choice), but also enhanced communications with non-formal, non-standard service providers (for example, other patients and carers offering advice and support or those offering alternative therapies) and facilitated self-service of a person's own health management. The consequence has been an unsettling of the consumer-health service provider interface, with a misalignment of formal and informal service provision, forcing a renegotiation of respective roles and power relationships. In line with contemporary practice, this paper advocates that a patient-centered approach to health services delivery requires a focus on the underlying negotiation process, which is a delicate balancing act between patient and professional perspectives on healthcare value creation (e.g., clinical and ecological validity of illness and treatments). To stimulate and support discussion, this paper will present the combined conclusions from several funded projects, highlighting the following important issues: digital technologies as a driver for change across 5 diverse national contexts; changing patient/carer behaviours and fragmented expectations; the nature of and features that facilitate the patient-professional negotiation process; how the patient voice can be heard through integrating a more equal power balance; supporting patient-carer-professional partnerships within online community spaces; recognition of a parallel set of virtual informational and service activities in which particular groups of patients and carers may be engaged. The aim is to open up areas for debate rather than providing deterministic conclusions.

Effecting meaningful change in integrated care

Peter Schröder-Bäck

P Schröder-Bäck
Department of International Health, Maastricht University, Maastricht, The Netherlands
Contact: peter.schroder@maastrichtuniversity.nl

Background

Successful implementation of innovative policies needs more than an empiric evidence base. Several studies in implementation sciences have shown that barriers and facilitators are complex in this context. The aim of this presentation is to identify barriers and facilitators for policy change that relate to individual, organisational, societal and professional norms and values.

Methods

A literature review will identify relevant facilitators and barriers impacting the effectiveness of change. These are analysed with regard to the question what norms and values relate to these factors.

Results

Research shows that '[i]nnovations that are compatible with the intended adopters' values, norms, and perceived needs are more readily adopted' (Greenhalgh et al. 2004), in other words, being aware of values and norms of stakeholders affected by change is essential to implement integrated care innovations and successfully change policy. The role of autonomy - of individual stakeholders but also of professions themselves - is pertinent to the understanding of basic norms and values in this context. Different understandings of the role of solidarity or dignity of the patients also play a role.

Discussion / Conclusions

Underlying values and normative assumptions could hinder or promote change - depending if they are in conflict with each other or are compatible. To recognize underlying norms and values of individuals, society, organisations and different professional groups is a key for effecting change. The concerns, convictions, traditions and cultures of all stakeholders have to be considered and balanced to not 'overrun' stakeholders and make the effective implementation of innovations impossible.

Affordability and Sustainability in Integrated Care

Daniela Luzi

D Luzi, F Pecoraro
[1]National Research Council, Institute for Research on Population and Social Policies, Rome, Italy
Contact: d.luzi @irpps.cnr.it

In the last two decades healthcare spending has been raised steadily in most OECD countries for different reasons, such as the ageing of population, the rising prevalence of chronic diseases and co-morbidities as well as the increasing costs of hospital services. Sustainability of health systems is therefore becoming a very pressing issue, especially if we consider that due to the global economic crisis governments are starting to cut health and social budgets seriously. Moreover, the need to assure financial sustainability of health systems without undermining the value of universal coverage, solidarity in financing, equity of access and provision of high-quality health care - as stressed by the Council of European Union in "Statement on Common Values and Principles" - makes this issue even more challenging. Interventions aiming to integrate care service provision are beginning to be considered as a changing paradigm to improve the quality of services and, at the same time, promoting its sustainability. Evaluation of these interventions both in terms of costs and benefits may consider different aspects and perspectives and apply different types of measurements. Considering the different definitions of integrated care, this contribution will provide an overview of some of the main issues pertaining requisites, methods and indicators to evaluate the economic and financial effects on the provision of integrated care.

8.L. Oral presentations: Alcohol and smoking

Socioeconomic status, lung cancer and smoking in a pooled analysis of case-control studies

Jan Hovanec

Hovanec[1], Siemiatycki[2], Conway[3], Jöckel[4], Olsson[5,6], Straif[5], Schüz[5], Kromhout[7], Kendzia[1], Pesch[1], Brüning[1], Behrens[1], the SYNERGY study group
[1]Institute for Prevention and Occupational Medicine of the German Social Accident Insurance Institute, Bochum, Germany
[2]University of Montreal, Hospital Research Center (CRCHUM) and School of Public Health, Montreal, Canada
[3]Dental School, College of Medicine Veterinary and Life Sciences, University of Glasgow, Glasgow G2 3JZ, UK
[4]Institute for Medical Informatics, Biometry and Epidemiology, University Hospital Essen, Germany
[5]International Agency for Research on Cancer (IARC), Lyon, France
[6]Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden
[7]Environmental Epidemiology Division, Institute for Risk Assessment Sciences, Utrecht University, Utrecht, The Netherlands
Contact: hovanec@ipa-dguv.de

Background

The association between socioeconomic status (SES) and lung cancer has been demonstrated in various studies. However, many studies did not adequately control for smoking habits and the findings to which extent SES was explained by smoking are not consistent. We studied the association between lung cancer and occupationally derived SES using data from the international pooled SYNERGY study.

Methods

Twelve case-control studies from Europe and Canada were included in the analysis. We measured SES using the International Socio-Economic Index of Occupational Status (ISEI) and the European Socio-economic Classification (ESeC) based on three classes. We divided the ISEI-range into quarters and, alternatively, created four ISEI-categories based on quartiles of the distribution among controls. We calculated odds ratios (OR) and 95% confidence intervals (CI) by unconditional logistic regression models, adjusting for age, sex, study, and smoking behaviour. We stratified analyses by sex, study region, histological subtype of lung cancer, birth cohort, and education and conducted several sensitivity analyses.

Results

The final analysis included 17,021 cases and 20,885 controls. We observed an association of lung cancer and SES that was reduced by up to 50% by adjustment for smoking. Analyses revealed a social gradient (by descending SES): OR 1.19 (95% CI 1.07–1.33), OR 1.71 (95% CI 1.54–1.90), OR 1.80 (95% CI 1.61–2.02) for ISEI and OR 1.11 (95% CI 1.03–1.20) and OR 1.50 (95% CI 1.42–1.59) for ESeC. Adjustment for education further reduced the risk estimates. SES-differences on lung cancer risk were more pronounced among men.

Conclusion

SES remained a risk factor for lung cancer after adjustment for smoking habits. Still, the elimination of smoking continues to be the major target for the prevention of lung cancer.

Key message

- Smoking does not explain all SES-differences of lung cancer, but it remains the most important risk factor and prevention target

Long term trends in inequalities in smoking-attributable mortality in 6 European countries

Rianne de Gelder

G Gregoraci[1,2], FJ van Lenthe[1], F Peters[1], G Menvielle[3,4], P Martikainen[5], G Costa[6], R de Gelder[1], JP Mackenbach[1], for the DEMETRIQ consortium
[1]Department of Public Health, Erasmus MC, University Medical Center Rotterdam, The Netherlands
[2]Institute of Hygiene and Clinical Epidemiology, Department of Medical and Biological Sciences, University of Udine, Udine, Italy
[3]INSERM, UMR_S 1136, Pierre Louis Institute of Epidemiology and Public Health, Paris, France
[4]Sorbonne Université, UPMC Univ Paris 06, UMR_S 1136, Pierre Louis Institute of Epidemiology and Public Health, Paris, France
[5]Department of Sociology, University of Helsinki, Helsinki, Finland
[6]Department of Public Health University of Turin, Turin, Italy
Contact: r.degelder@erasmusmc.nl

Smoking is one of the most important determinants of socioeconomic inequalities in mortality, but the extent to which its contribution has changed over time has not been widely explored. We therefore studied the changing contribution of smoking to inequalities over 40 years between 6 European populations.

We collected and harmonized population-wide data on all-cause and lung-cancer mortality by age, gender, educational and occupational level in 6 European populations between beginning of '70s and second half of '00s. Smoking-attributable mortality rates (SAMRs) were indirectly estimated using the Preston-Glei- Wilmoth method. All data were age-standardized using the European Standard Population.

Preliminary Results

Among men we saw a parallel decline in total mortality rates and in SAMRs, while in women the increase in SAMRs seemed to prevent a sharper decline in total MRs. The classical shape of the smoking epidemic was observed only among women from Southern countries and Hungary, while in all other cases low and mid educational groups showed higher SAMRs. Absolute inequalities in smoking-attributable mortality as well as the contribution of smoking to inequalities in total mortality generally decreased or remained stable over time in men, except for Hungary where it increased. Among women, inequalities in smoking-attributable mortality were much smaller than among men, and in some countries even reversed in the '70s, but tended to increase over time. The contribution of smoking to inequalities in total mortality was very low 40 years ago but tended to increase over time, except for Hungary where this occurred later. Relative inequalities increased in both genders over time.

Tobacco epidemic does not seem to have proceeded the same way in all countries. In men, smoking has become a less important determinant of socioeconomic inequalities in total mortality; its contribution has increased in women. New tobacco control strategies are needed for women and in the East.

Key messages

- The classical shape of the tobacco epidemic among socio-economic groups did not occur everywhere, but only in a minority of situations
- The contribution of smoking to inequalities in mortality is decreasing in men but is increasing in women and in the Eastern Europe

Tobacco & alcohol retail environments: inequalities in individual-level smoking & drinking

Jamie Pearce

J Pearce[1], N Shortt[1], E Rind[1], R Mitchell[2]
[1]Centre for Research on Environment, Society and Health (CRESH), University of Edinburgh, Edinburgh, UK
[2]Health and Health Policy, University of Glasgow, Glasgow, UK
Contact: jamie.pearce@ed.ac.uk

Background

This study investigated whether neighbourhood tobacco & alcohol retail environments are associated with (i) individual-level smoking & cessation & (ii) problem drinking in Scottish adults, and whether behaviour inequalities were related to neighbourhood retailing.

Methods

Tobacco & alcohol outlet density measures were developed for neighbourhoods across Scotland using the Scottish Tobacco Retailers Register, & alcohol outlet data from 32 Licensing Boards. The density measures were appended to data on adults in the 2008–11 Scottish Health Surveys ($n = 28,751$). 2-level logistic regression models examined whether neighbourhood density of tobacco & alcohol retailing were associated with smoking (current smoking & cessation) & alcohol (exceeding recommendations, harmful drinking, binge drinking & problem drinking) outcomes, & whether there were differences between household income & smoking status, by outlet density.

Results

For tobacco retailing, after adjustment, compared to residents of areas with the lowest densities, those with the highest densities had a 6% higher chance of being a current smoker, & a 5% lower chance of being an ex-smoker ($P < .01$). There was little evidence that inequalities in current smoking or cessation were narrower in areas with lower availability of tobacco retailing. For alcohol retailing, there was a modest but significant association between alcohol outlet density & the four alcohol-related outcomes with worse outcomes in areas with higher alcohol outlet densities. Inequalities in problem drinking were significantly narrower in areas with lowest densities.

Conclusions

Residents of environments with a greater availability of tobacco outlets were more likely to be a smoker. Residents of neighbourhoods with a higher density of alcohol outlets are more likely to partake in risky alcohol consumption. A higher density of alcohol outlets is linked to greater inequalities in harmful alcohol behaviours, particularly problem drinking.

Key messages

- The neighbourhood density of tobacco and alcohol outlets are associated with smoking and alcohol outcomes among Scottish adults
- Neighbourhoods with a higher density of alcohol outlets are linked to greater inequalities in harmful alcohol behaviours, particularly problem drinking

The effect of cancer warning statements on alcohol consumption intentions

Michelle Jongenelis

M Jongenelis[1], S Pettigrew[1], D Glance[2], T Chikritzhs[3], IS Pratt[4], T Slevin[4], W Liang[5], M Wakefield[6]
[1]School of Psychology and Speech Pathology, Curtin University, Bentley, Australia
[2]UWA Centre for Software Practice, University of Western Australia, Crawley, Australia
[3]National Drug Research Institute, Curtin University, Bentley, Australia
[4]Cancer Council Western Australia, Shenton Park, Australia
[5]National Drug Research Institute, Curtin University, Bentley, Australia
[6]Centre for Behavioural Research in Cancer, Melbourne, Australia
Contact: michelle.jongenelis@curtin.edu.au

Background

There is growing evidence suggesting that alcohol consumption is associated with increased cancer risk. To increase community awareness of this link, calls have been made to introduce warning labels on alcoholic beverages, similar to those successfully used on tobacco products. This study examined the effectiveness of alcohol warning statements and aimed to determine whether these statements change behavioural intentions towards alcohol consumption.

Method: Over 2000 Australian adult drinkers participated in a national online survey that exposed respondents to one of six cancer warning statements delivered across a range of situational contexts in an online simulation. The believability, convincingness, and personal relevance of the warning statements was assessed. Changes in respondents' alcohol consumption intentions were also assessed.

Results

All statements produced favourable changes in alcohol consumption intentions. This was also the case amongst respondents categorised as high-risk drinkers. Of the six statements tested, Alcohol increases your risk of bowel cancer produced the most favourable scores across all outcome measures.

Conclusions

In addition to comprehensive public campaigns, there is great potential to increase consumer awareness of the relationship between cancer risk and alcohol consumption at point of sale or point of consumption. A suite of rotating cancer warning messages located on alcoholic beverage labels and applied in various public education contexts represents one potential means of achieving this outcome.

Key messages

- All six statements produced favorable outcomes in terms of attitudes to the message and changes in drinking intentions
- Cancer warning statements have the potential to play an important role in public education programs designed to inform drinkers of the harms associated with alcohol consumption and encourage change

Beverage type and early drinking onset account for negative consequences experienced by students

Sara De Bruyn

S De Bruyn[1], E Wouters[1], K Ponnet[2,3,4], G Van Hal[5], J Rosiers[6], J Van Damme[6], A Hublet[6], M Sisk[6], Y Si Mhand[6], L Maes[6]
[1]Department of Sociology, University of Antwerp, Antwerp, Belgium
[2]Department of Communication Studies, University of Antwerp, Antwerp, Belgium
[3]Social Concurrence and Law, University of Antwerp, Antwerp, Belgium
[4]Higher Institute for Family Sciences, Odisee, Brussels, Belgium
[5]Department of Epidemiology and Social Medicine, Medical Sociology and Health Policy, University of Antwerp, Antwerp, Belgium
[6]Task Force substance use in Flemish universities and colleges
Contact: sara.debruyn@uantwerpen.be

Background

Although alcohol is socially accepted in most Western societies, studies are clear about its negative consequences, especially among university and college students. We aimed to answer two research questions: (1) which beverage type is most accountable for the negative consequences experienced by students? and (2) are these consequences determined by early drinking onset?

Method: A cross-sectional survey on substance use was emailed to six universities and colleges in Flanders (Belgium) in 2013. 19,253 students (22.1% response rate) participated anonymously. Negative consequences were measured with the Core Alcohol and Drug Survey (CADS). Data were analyzed using factor analysis and negative binomial regression.

Results

A two-factor structure of the CADS was revealed, identifying (1) personal negative consequences (PNC) (e.g., having a hangover) and (2) social negative consequences (SNC) (e.g., getting into an argument/fight). Preliminary results indicate the highest PNC incident rate ratio (IRR) for daily beer drinkers ($IRR = 2.32; p < .001$). However, daily spirits drinkers had the highest SNC rate ($IRR = 3.51; p < .001$). Moreover, early drinking onset was correlated with PNC/SNC. This correlation was especially strong between beer drinking onset and SNC. Compared with <15 year olds, SNC rates were as follows: .920 (15y), .768 (16y), .749 (17y), .660 (18y), .658 (>18y) (all significant p-values).

Conclusion

Our findings indicate a close correlation between drinking beer and PNC as well as between drinking spirits and SNC. Similarly, early drinking onset has a large influence on PNC/SNC rates. To the best of our knowledge, this study is the first to incorporate detailed information on both beverage type and drinking onset, and the associated negative consequences, as measured by the CADS, in a large student population. These findings may be of particular importance to health care workers who work with adolescents and/or students, as the results draw attention to the numerous risks related with excessive beer and spirits drinking as well as with early drinking onset.

Key messages

- Future alcohol studies should differentiate between beverage types and both personal and social consequences, as these lead to more balanced results
- Prevention focused on delaying drinking age during adolescence would be useful in diminishing negative consequences experienced during studentship

Alcohol consumption and trajectories of physical functioning in Eastern Europe: 10-year follow-up

Martin Bobak

M Bobak[1], Y Hu[1], S Malyutina[2], A Pajak[3], R Kubinova[4], H Pikhart[1]
[1]Dept. of Epidemiology and Public Health, University College London, UK
[2]Institute of Internal and Preventive Medicine, Novosibirsk, Russia
[3]Dept. of Epidemiology and Population Studies, Jagiellonian University, Krakow, Poland
[4]National Institute of Public Health, Prague, Czech Republic
Contact: m.bobak@ucl.ac.uk

Background

Physical functioning (PF) is an essential domain of quality of life of older persons. Health behaviours are the main modifiable determinants of PF. Cross-sectionally, consumption of alcohol appears to be associated with better PF but there is very little longitudinal evidence on this important public health question.

Methods

Longitudinal analysis of 28,783 men and women aged 45–69 years from Novosibirsk (Russia), Krakow (Poland) and seven towns of the Czech Republic. At baseline, alcohol consumption was measured by a graduated frequency questionnaire and problem drinking was evaluated by the CAGE questionnaire. PF at baseline and three subsequent occasions was measured by the physical functioning subscale of the SF-36 instrument. Growth curve model was used to estimate the PF trajectories over approximately 10 years of follow-up.

Results

The PF score declined linearly during the follow-up in all three cohorts but there was no evidence that alcohol is protective against PF decline over time; in fact, a faster decline in PF was seen in more frequent and heavier drinkers in several sex-cohort-specific groups. Problem drinking and past drinking was not related to the rate of PF decline over time.

Conclusions

The findings of this large longitudinal study in Eastern European populations with relatively high intake of alcohol do not support an existence of protective effects of alcohol previously reported in cross-sectional studies of PF. It is important that public health messages to older people are prudent about the unproven beneficial effects of alcohol.

Key messages

- Results from this large prospective study do not support the hypothesis that alcohol has protective effect against PF decline; instead, the cross-sectional finding may reflect reverse causation
- Public health messages regarding role of health behaviours should refrain from referring to protective role of alcohol in healthy ageing

8.M. Oral presentations: Age, morbidity and mental health

Change in smoking status and change in health-related quality of life in young adults

Jing Tian

J Tian[1], A Venn[1], L Blizzard[1], G Patton[2], T Dwyer[1,3], S Gall[1]
[1]Menzies Institute of Medical Research, Univeristy of Tasmania, Hobart, Tasmania, Australia
[2]Murdoch Childrens Research Institute, Melbourne, Victoria, Australia
[3]The George Institute for Global Health, University of Oxford, Wellington Square, Oxford, United Kingdom
Contact: J.Tian@utas.edu.au

Background

The possibility that tobacco use affects health-related quality of life (HRQoL) has attracted interest. However, a lack of prospective evidence weakens the case for a causal relationship.

We addressed these limitations in a cohort of young adults.

Methods

Self-reported socio-demographic and lifestyle information was collected in 2004–2006 (aged 26–36) and 2009–2010 (aged 31–41). Linear and log multinomial regression models examined how smoking status changes (stable never, stable former, continued, resumed smokers, quitters) were associated with physical and mental HRQoL changes.

Results

For physical HRQoL change (n = 2,080), quitting smoking was associated with 2.12-point higher (95% CI: 0.73, 3.51) scores than contiuing smoking, whereas resuming smoking was associated with 2.08-point lower (95% CI: −3.94, −0.21) scores than maintaing cessation. Relative to stable category (within 5-point scores change), resumed smokers were 39% more likely to have a clinically significant reduction of physical HRQoL than stable former smokers (RR: 1.39, 95% CI: 1.10, 1.75). In contrast, quitters were 43% more likely to have a clinically significant improvement than continuing smokers (RR: 1.43, 95% CI: 1.03, 1.98). No significant difference was obseved between change in smoking status and mental HRQoL change (n = 1,788).

Conclusions

Smoking in young adults was longitudinally associated with lower physical HRQoL. Quitters and stable former smokers showed an improvement of physical HRQoL than continuing and resumed smokers, respectively.

Key message

- There is less awareness among smokers of the negative day to day health effects of smoking and this data highlights the need to emphasise this aspect

Loneliness and it's predictors in older age: Findings from the English Longitudinal Study of Ageing

Jitka Pikhartova

J Pikhartova, C Victor
Department of Clinical Sciences, Brunel University London, Uxbridge, UK
Contact: jitka.pikhartova@brunel.ac.uk

Background

Loneliness is perceived as a problem of later life because it compromises quality of life and is associated with a range of negative health outcomes. There is only limited evidence describing changes of loneliness over time and what factors are associated with those changes. We use the English Longitudinal Study of Ageing (ELSA) to examine loneliness, its changes and predictors over a 10 year follow-up period in representative sample of the population aged 50+ years.

Method: Data from 5,316 ELSA core members were used in multivariable regression analysis to establish loneliness prevalence (using short-version of the UCLA loneliness scale) and its association with possible predictors such as available socio-demographic and health-related variables.

Results

The prevalence of loneliness was 17 to 20% in each wave of ELSA and increased with increasing age. In pathway analysis 72% of respondents were 'never lonely', while 7% were 'always lonely'. Longitudinal changes in loneliness ('moving into', 'moving out' and 'fluctuation') were reported between 5 and 8% of respondents. Higher risk of loneliness was related to older age, being female, living alone, being retired, and being classified in low socioeconomic group. Expectation of loneliness and age-related stereotypes of loneliness among those reporting 'not-lonely' in Wave 1 were also found to have strong association with reported loneliness later on in Wave 6 (OR 2.98 (95%CI 2.33–3.75) and 2.65 (95%CI 2.05–3.42)).

Conclusions

Results suggest that the prevalence of loneliness is approximately stable over time in English population aged 50+, and that there is set of factors strongly predicting later loneliness. It is shown that ageist stereotypes are strongly embedded in the public. Our findings could suggest where interventions should be focused- to change public attitudes about old age and eliminate ageism views.

Key message

- Characterising sub-groups of loneliness in population and reporting rates of loneliness and factors that are linked with its increase could enable to target loneliness in later life more precisely

Changes in physical activity and subsequent mental disorders among aging Finnish employees 2000–2012

Jouni Lahti

J Lahti, E Lahelma, O Rahkonen
Department of Public Health, University of Helsinki, Helsinki, Finland
Contact: jouni.mm.lahti@helsinki.fi

Background

Physical inactivity is a major public health problem associated with an increased risk of mental health problems. The aim of this study was to examine whether changes in leisure-time physical activity are associated with subsequent common mental disorders among middle-aged women and men.

Methods

Follow-up survey data were collected from 40–60-year-old employees of the City of Helsinki, Finland, at three time points: Phase 1 (2000-02), Phase 2 (2007) and Phase 3 (2012). Leisure-time physical activity was asked using identical questions and participants were classified as inactive or active at the phases 1 and 2. This yielded a four category variable describing changes and persistency in physical activity. Common mental disorders were examined by the General Health Questionnaire (GHQ-12). Logistic regression was used to calculate odds ratios for GHQ score >4. We excluded those with common mental disorders at phase 1(n = 1160) and in total 4724 respondents (81% women) were available for the analyses.

Results

Over fifty per cent were persistently active and about 15% were persistently inactive. About 15% moved from active to inactive as well as from inactive to active. Overall about 12% of the participants had common mental disorders at phase 3. Compared with those persistently inactive, those adopting (OR = 0.69, 95% CI 0.52–0.92) and persistently active (OR = 0.63, 95% CI 0.50–0.79) as well as those decreasing physical activity (OR = 0.64, 95% CI 0.47–0.87) had reduced risk of subsequent common mental disorders when age and gender were adjusted. Adjusting for binge drinking and smoking had no effects on these associations. Whereas physical functioning somewhat attenuated the associations found which, however, remained significant.

Conclusions

Persistent physical inactivity at middle-age may be harmful for mental health. Promoting leisure-time physical activity among the middle-aged may prove useful for preventing mental health problems.

Key messages

- Persistent physical inactivity was associated with increased risk of subsequent common mental disorders
- Promoting physical activity may reduce mental health problems among middle-aged

Sexual orientation differences in mental health morbidity: A population-based longitudinal study

Richard Bränström

R Bränström[1], JE Pachankis[2], ML Hatzenbuehler[3]
[1]Department of Clinical Neurosc ience, Karolinska Institutet, Stockholm, Sweden
[2]Chronic Disease Epidemiology, Yale School of Public Health, New Haven, USA
[3]Department of Sociomedical Sciences, Columbia University, New York, USA
Contact: richard.branstrom@ki.se

Background

Recent studies have identified substantial mental health disparities between lesbian, gay, and bisexual (LGB) individuals compared to heterosexuals. However, possible variation in sexual orientation mental health disparities across the life course remains largely unexplored.

Purpose: To examine disparities in mental health morbidity between LGB and heterosexual individuals in a general population sample in Sweden, and to explore potential age differences in these disparities.

Method

We used morbidity data from the Stockholm Public Health cohort, a representative general population-based study in Stockholm, Sweden. The cohort consists of over 75 000 individuals (aged 18 years and older) followed up with regular self-report questionnaires as well as registry-based archival morbidity data.

Results

Overall, LGB individuals were more likely to have received treatment for mental health diagnoses and to have used anti-depressant medication compared to heterosexuals. The largest disparities were found for mood disorders among men (odds ratio [OR] for sexual orientation disparity: 3.66, 95% CI: 1.98-6.78), and substance-related disorders among women (OR for sexual orientation disparity: 4.45, 95% CI: 2.17-9.13). Disparities in treatment for mental diagnoses were largest among adolescents and young adults, and decreased with increasing age; no sexual orientation disparities were found in the oldest age group (65 years and older). However, use of anti-depressants was consistently more than twice as common among gay and bisexual men, from early adulthood (30-44 years) and older, as compared to heterosexual men.

Conclusions

Age emerged as an important effect modifier of mental health disparities based on sexual orientation. These results partially support a developmental model of minority stress and mental health among LGB individuals.

Key messages

- There are substanital sexual orientation based mental health differences in Sweden
- Age is an important effect modifier of mental health disparities based on sexual orientation

Psychotropic medication and mortality: a register-based study among Finnish women and men 1995–2013

Tea Lallukka

T Lallukka[1], O Pietiläinen[2], T Partonen[3], O Rahkonen[2], E Lahelma[2]
[1]Department of Public Health, University of Helsinki, Helsinki, Finland & Finnish Institute of Occupational Health, Helsinki, Finland
[2]Department of Public Health, University of Helsinki, Helsinki, Finland
[3]National Institute for Health and Welfare, Helsinki, Finland
Contact: tea.lallukka@ttl.fi

Background

Psychotropic medication is prevalent in working age, but its long term consequences are poorly understood. We examined the associations between different types of psychotropic medication and cause-specific mortality.

Methods

Data comprised those employed by the City of Helsinki, Finland, 1995–2013 (37156 women and 10848 men). The personnel register data were linked with psychotropic medication (ATC-codes) data from the Social Insurance Institution of Finland 1995–2009. Cumulative purchases of antidepressant medication divided into selective serotonin reuptake inhibitors (SSRI, N06AB) and tricyclic antidepressants (TCA, N06AA), and benzodiazepines and derivatives (Z drugs, N03AE, N05BA, N05CD, N05CF, N06CA) were examined. Statistics Finland provided data about natural (cancer, cardiovascular diseases, other) and unnatural causes (suicide, other) of death 1995–2013 (ICD-10). Log-binomial regression was used.

Results

Altogether 25% of participants had SSRI, 6% TCA and 29% Z drugs during the follow-up. There were 1174 deaths due to natural causes and 222 due to unnatural causes (93 suicides). The risk of mortality varied by the type of medication and the outcome, and was strongest for suicides. Thus, those on SSRI medication had a 10.5-fold (95% CI 6.5–16.8), those on TCA a 9.5-fold (95% CI 6.2–14.7), and those on Z drugs a 5.8-fold (95% CI 3.7–9.0) suicide risk as compared to those without the corresponding medication. The risks further tended to increase with cumulative defined daily doses, particularly regarding the

Z drugs. No gender or age interactions were found. The risks were also found for the natural outcomes, but they were weaker than for unnatural causes.

Conclusions

While psychotropic medication is a commonly used treatment for mental disorders, its associations with premature mortality should be considered. Thus, in efforts to improve mental health, benefits and risks of different types of psychotropic medication should be carefully evaluated.

Key messages

- Psychotropic medication was common among women and men, and associated with premature mortality
- The risks varied depending on the medication, and were particularly strong for deaths due to suicide

Mortality trends among people with schizophrenia, bipolar disorder and depression, Sweden 1987–2010

Mika Gissler

M Gissler[1,2,3], U Ösby[1], Je Westman[1], J Hällgren[1]
[1]Karolinska Institute, Section for General Practice, Sweden
[2]THL National Institute for Health and Welfare, Finland
[3]University of Turku, Research Centre for Child Psychiatry, Finland
Contact: mika.gissler@thl.fi

Introduction

People with severe mental illness have increased risk for premature mortality and thus a shorter life expectancy. Relative death rates are used to show the excess mortality among patients with mental health disorders, but they cannot be used for the comparisons by country, region and time.

Methods

A total of 48,428 patients admitted to hospital in 1987–2006 with a main diagnosis of schizophrenia, bipolar disorder or depression were identified in the Swedish Patient Register. Mortality rate ratios and predicted mortality rates were calculated for years 1987–2010 with corresponding 95% confidence intervals (CI), adjusted for sex, attained age and years of follow-up. Data on all residents of Sweden ($n = 10,631,208$) were used for comparisons. The risk of dying after first hospital admission was analysed by estimating cause-specific survival curves using the Kaplan-Meier method. Additional adjusted hazard ratios with 95% CIs were estimated using Cox proportional hazard models.

Results

Patients with severe mental health disorders had a three-fold mortality compared to general population. From 1987 to 2010, all-causes mortality decreased by 9% for people with bipolar disorder and by 26–27% for people with schizophrenia or depression, while the decline was 30% in the general population. Also the mortality from diseases of the circulatory system declined less for people with severe mental disorder (from −35% to −42%) than for general population (−49%). The pattern was similar for different cardiovascular causes excluding cerebrovascular deaths for which the rate declined substantially among for people with schizophrenia (−30%) or depression (−41%) group, but not for bipolar disorder (−3%).

Conclusions

People with mental health disorder have still increased mortality, and the mortality declined faster for general population than for psychiatric patients. More detailed analysis is required to reveal the causes of death with largest possibilities for improvement.

Key messages

- Age-standardised mortality rates can be used to analyse mortality differences in population groups
- Mortality gap between general population and psychiatric patients seems to be increasing

8.N. Regular workshop: Two trials on prevention of obesity among preschool children and the latest evidence in the field

Organised by: Karolinska Institutet
Contact: finn.rasmussen@ki.se

Chairs: Finn Rasmussen, Berit L Heitmann

Background and rationale

With increase in childhood obesity, effective primary prevention interventions of childhood obesity are urgently needed. Targeting subgroups that are particular susceptible to obesity could prove to be a more effective intervention strategy than targeting general populations. However, there is no straightforward answer to this question, which will be discussed in this workshop. While the need for early childhood obesity prevention is widely recognized, there is still a lack of evidence concerning the effects of interventions targeting preschool children. The current knowledge in the field will be summarized briefly. The following questions are important issues to consider when designing primary prevention trials: (i) Who should be targeted? (ii) When should they be targeted? (iii) In which setting should they be targeted? and (iv) How should an intervention be carried out? The importance of a theoretical framework for the design of primary prevention interventions will also be discussed briefly.

Objectives

The objectives of this proposed workshop is to present the latest evidence on the effectiveness of primary prevention of childhood obesity. In addition, the participants will get insights into the design and results of two different population-based intervention studies: one randomized controlled trial on preschool children embedded within the primary care settings of Sweden and another randomized controlled trial tailored for a high risk group of non-obese preschool children from Denmark.

This workshop will cover the design and results of two recent large intervention studies: the Healthy Start Trial from Denmark and the PRIMROSE Trial from Sweden. While different in scope and target populations, both intervention studies go beyond the approach of only addressing dietary habits and physical activity. The Danish trial additionally covers stress and sleep, and the Swedish objectively measured sedentary behaviors.

Structure of the workshop

The workshop will start with a short summary of current evidence on primary prevention of obesity among preschool children by chairperson Prof. Finn Rasmussen. The first presentation on the PRIMROSE study is divided in two parts, where first the design and the primary outcomes will be presented by Finn Rasmussen and then more focus will be set on the secondary outcomes presented by Nora Döring. The same structure will be used for the second presentation with first Nanna J. Olsen presenting the first part and the second part is presented by Jeanett F. Rohde. In the third presentation, the use of accelerometer for measuring PA will be presented as well as the results on the physical activity of four years old children in PRIMROSE trial will be presented. Before finishing the workshop with a discussion with the audience, chairperson Berit L. Heitmann will talk about high risk strategies in primary prevention and the question: Who should we target?

Key messages

- Prevention intervention of childhood obesity may benefit from going beyond merely offering dietary and physical activity advice
- Long-term follow up of the effectiveness of primary prevention interventions with objective measurements of outcomes, e.g. of physical activity, are needed, in addition to a theoretical framework

Primary prevention of childhood obesity: Results from a population-based cluster-randomized trial (PRIMROSE)

Nora Döring

N Döring[1], Ata Ghadari[2], P Tynelius[1], Berit L Heitmann[3,4,5], Finn Rasmussen[1,6], on behalf of the PRIMROSE consortium

[1]Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden

[2]Division of Psychology, Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden

[3]Research Unit for Dietary Studies, The Parker Institute, Copenhagen University Hospital, Copenhagen, Denmark

[4]The Boden Institute of Obesity, Nutrition, Exercise & Eating Disorder, University of Sydney, Sydney, Australia

[5]National Institute of Public Health, University of Southern Denmark, Odense, Denmark

[6]Centre for Epidemiology and Community Medicine, Health Care Services, Stockholm County Council, Stockholm, Sweden

Contact: nora.doering@ki.se

Objective

To evaluate the health outcomes of a manualized intervention program based on social cognitive therapy and motivational interviewing. The program was embedded in Swedish child health services and started when eligible children were 9–10 months of age and ended at four years of age.

Methods

Child health centers (CHCs) were randomized into intervention or control groups. First-time parents receiving preventive services at a participating CHC were eligible to the trial. The PRIMROSE cluster-randomized trial included 1369 families. Families belonging to intervention CHCs took part in nine sessions with a trained nurse; those belonging to control CHCs were offered usual child health services. All intervention sessions focused on promotion of healthy dietary and physical activity behaviors among the children. The primary health outcomes were body mass index (BMI) and waist circumference at four years of age.

Preliminary Results

Retention at follow-up was 74.8%. At end of follow up, there were no significant differences between the intervention and the control groups in children's and their mothers BMI or waist circumference. With regard to children's dietary habits, significantly more healthy habits were observed in the intervention group than in the control group.

Conclusion

Evaluation of PRIMROSE data showed that while there were no significant group differences in children's and mother's anthropometric data, there was suggestive evidence concerning children's eating habits at 4 years of age.

The Healthy Start project: a randomized, controlled intervention to prevent overweight among normal weight, preschool children at high risk of future overweight

Jeanett Friis Rohde

NJ Olsen[1], JF Rohde[1], BL Heitmann[1,2,3]

[1]Research Unit for Dietary Studies at The Parker Institute and Institute of Preventive medicine, Copenhagen Capital Region, Copenhagen University Hospitals, Copenhagen, Denmark

[2]The Boden Institute of Obesity, Nutrition, Exercise & Eating Disorder, University of Sydney, Sydney, Australia

[3]National Institute of Public Health, University of Southern Denmark, Copenhagen, Denmark

Contact: Jeanett.friis.rohde@regionh.dk

Objective

To evaluate health effects of a randomized controlled trial including families with normal weight children aged 2–6 years who are at increased risk of developing obesity.

Methods

Using information from the Danish National Birth Registry and administrative birth forms, children were identified who either had high birth weight, a mother with obesity early in pregnancy or low educational level. In total 3722 children were identified and invited to participate. Families were randomized either to intervention or the control groups. A third 'shadow' control group were identified and followed in registers only. Children who were overweight at baseline were excluded (n = 92). The intervention offered individual guidance in optimizing diet and physical activity habits, reducing chronic stress and improving sleep habits, and group-participation in cooking- and play arrangements. Questionnaires and objective measurements were used to obtain information on dietary intake, meal habits, and stress level. T-test and multiple linear regression models were used when analysing the effects of the intervention.

Preliminary results

Preliminary analyses of dietary patterns suggest significant and favourable changes in added sugar intake in the intervention compared to the control group at follow-up ($\geq$4.53, $p = 0.01$). No significant difference in BMI z-score between the intervention group and the control group was observed, but the shadow control group gained significantly more in BMI z-score than the intervention group ($\geq$0.23, $p = 0.019$).

Conclusion

The Healthy Start study found a beneficial effect on BMI z-score of the intervention when compared to the shadow control group, as well as on changes in added sugar.

Levels of objectively measured physical activity and sedentary behavior in the PRIMROSE trial

Daniel Berglind

D Berglind[1], L Hansson[1], P Tynelius[1], F Rasmussen[1,2]

[1]Karolinska Institutet, Department of Public Health Sciences, Child and Adolescence Epidemiology, Stockholm, Sweden

[2]Centre for Epidemiology and Community Medicine, Stockholm County Council, Health Care Services, Stockholm, Sweden

Contact: daniel.berglind@ki.se

Objective

Levels of physical activity (PA) affect health already at four years of age. The aim of this study was to describe levels of PA and sedentary behavior in the PRIMROSE cluster-randomized controlled trial and to assess the number of children achieving the recommended PA guidelines.

Methods

PA data from 936 four-year old children, 380 in the intervention group and 546 in the control group, enrolled in the population based PRIMROSE trial was used. PA was measured for a period of a week by the tri-axial Actigraph GT3X+ accelerometer. Total PA, time spent in light PA, moderate-to-vigorous PA (MVPA) and sedentary behavior in the intervention and control group were assessed.

Results

There were no significant differences in PA levels between the intervention and control group. Children in the intervention group spent 6.7% (SD 2.8) of the day in MVPA and 45.0% (SD 7.3) being sedentary, while children in the control group spent 6.7% (SD 2.8) of the day in MVPA and 44.9% (SD 7.3) being sedentary. The number of children achieving the recommended 60 minutes of daily after the intervention MVPA was 29.5% in the intervention group and 31.1% in the control group ($P = 0.59$). Boys were significantly more active and spent less time being sedentary compared to girls, both in the intervention and control group.

Conclusions

Levels of PA in four-year-old children do not differ between the intervention and control group in the PRIMROSE trial. The finding that approximately one third of four-year-old children meet the recommended PA guidelines, only, is alarming and questions the general belief that preschool children are assumed to be habitually active.

High-risk strategies in primary prevention - who should we target?

Berit Heitmann

BL Heitmann, NJ Olsen
Research Unit for Dietary Studies at The Parker Institute, Bispebjerg and Frederiksberg Hospital, The Capital Region, Denmark
Contact: Berit.Lilienthal.Heitmann@regionh.dk

Previous interventions have generally not been effective in preventing development of overweight, and at the same time studies suggest that some subgroups are more predisposed to future obesity. Obesity runs in families and the subgroup of children with obese parents is at a much higher risk of becoming obese than children of normal weight parents. Likewise, there is a several fold higher risk of obesity among children from lower than higher socioeconomic status families, and among those children born with a higher birth weight, those born to mothers who smoked during pregnancy, or those of Hispanic or African American origin. Generally, the studies targeting predisposed individuals seem more effective in preventing obesity than the studies targeting general populations. However, most previous studies on high risk groups focused on ethnicity or socioeconomic status, only, and hence, there is a need for more studies. These considerations were the background for the recently completed the Danish Healthy Start Trial Study.

8.O. Oral presentations: Physical activity and leisure

Correlates of stages of change for physical activity among adults. The German Health Update 2013–14

Jonas Finger

JD Finger[1], S Krug[2], K Manz[3], S Jordan[4]
Robert Koch Institute, Department of Epidemiology and Health Monitoring, Berlin, Germany
Contact: FingerJ@rki.de

Background

The promotion of physical activity (PA) is an important public health objective to control non-communicable diseases. This study aimed at investigating correlates of the readiness to increase own PA level in a population which in large part does not reach the current health-enhancing PA recommendations.

Methods

The study is based on a cluster-randomized, national adult sample from the 2013–2014 wave of the health interview survey 'German Health Update' (n = 5096). Prochaska and DiClemente's Transtheoretical Model (stages of change) on readiness to participate in leisure time PA was assessed with a set of self-administered questions. Complete information was available for 4826 participants. Weighted percentages of the stages of change were calculated using the survey design procedures in StataSE13.1. Multinomial regression models were calculated to identify correlates of the stages of change which were selected based on prior knowledge with references from the literature.

Results

17.3% (95% CI, 15.9–18.8) of men and women were in the 'precontemplation' stage of change, 13.6% (12.4–15.0) in 'contemplation', 6.7% (5.8-7.7) in 'preparation', 10.0% (9.0–11.2) in 'action' and 52.3% (50.0-54.6) in 'maintenance'. Being a man and older than 60 years were associated with being in precontemplation stage rather than maintenance. Being a manual worker, a current smoker, overweight, obese, and having low education, low self-perceived health and low transport-related PA were associated with being in precontemplation, contemplation, preparation and action stage of change rather than in maintenance.

Conclusions

About one third of the population who was insufficiently physically active in leisure time did not intend to do so in the next six month. Several socio-demographic and health-related variables were associated with varying patterns of stages of change for PA. Those factors need to be considered when designing strategies to increase PA on a population level.

Key messages

- For the first time national data for the stages of change for physical activity were assessed. We used these data to identify correlates of behavioral intension to engage in regular physical activity
- Several socio-demographic and health-related variables were associated with varying patterns of stages of change for PA. Those factors need to be considered when designing strategies to increase PA

Association of education with leisure-time physical inactivity in Finnish twins over 35 years

Maarit Piirtola

M Piirtola[1], J Kaprio[1,2,3], K Silventoinen[4], K Heikkilä[1], M Koskenvuo[1], P Svedberg[5], UM Kujala[6], A Ropponen[7]
[1]Department of Public Health, University of Helsinki, Helsinki, Finland
[2]National Institute for Health and Welfare, Helsinki, Finland
[3]Institute for Molecular Medicine (FIMM), University of Helsinki, Helsinki, Finland
[4]Department of Social Research, University of Helsinki, Helsinki, Finland
[5]Department of Clinical Neuroscience, Division of Insurance Medicine, Karolinska Institutet, Stockholm, Sweden)
[6]Department of Health Sciences, University of Jyväskylä, Jyväskylä, Finland
[7]Finnish Institute of Occupational Health, Helsinki, Finland
Contact: maarit.piirtola@helsinki.fi

Background

Low education has been linked with physical inactivity in cross-sectional studies. Longitudinal studies investigating the role of education on physical inactivity are rare. We analysed the association of education on leisure-time physical inactivity in Finnish adult twins with a follow-up over three decades.

Methods

This longitudinal study included 5254 twin individuals (41% men, born 1945–1957) from the population-based Finnish Twin Cohort with complete data on leisure-time physical activity from surveys conducted in 1975, 1981, 1990 and 2011 (response rates from 72% to 89%). The highest education in years was measured in 1981, and the association of education was analysed on leisure-time physical inactivity (<1.5 metabolic equivalent hours/day) at each survey. We followed those physically inactive in 1975–81 (baseline) and analysed the role of education to their inactivity in 1990 and in 2011 (9 and 30 years later). Logistic regression models adjusted for age, sex, body mass index, alcohol consumption, smoking, working status, marital status and socio-economic status were used.

Results

At each time point, the mean number of years in education was 0.5 to 0.7 lower among those physically inactive compared to the active group. In the age- and sex-adjusted cross-sectional analyses, each year of higher education was associated with lower risk of inactivity [Odds Ratios (OR) 0.95, 95%CI 0.93, 0.97]. In the 9- and 30-year follow-ups, the associations of education on remaining physically inactive attenuated from the cross-sectional analyses [OR = 0.98 (95%CI 0.95, 1.0) in 1990, and 0.97 (95%CI 0.93, 1.0) in 2011]. Adjusting for the other covariates did not change these associations.

Conclusions

Higher education is associated with lower risk for physical inactivity in the cross-sectional analyses but the impact may attenuate in the long-term perspective.

Main message

Higher education may be beneficial in preventing leisure-time physical inactivity.

Key message

- Higher education may be beneficial in preventing leisure-time physical inactivity

Music and Public Health. The use of music in everyday life of adult Danes its health implications

Lars Ole Bonde

LO Bonde[1], K Ekholm[2], K Juel[2]
[1]Dept. of communication and psychology, Aalborg University, Aalborg, Denmark
[2]National Institute of Public Health, University of Southern Denmark, Copenhagen, Denmark
Contact: lobo@hum.aau.dk

Background

Music and Public health' is a new field of study, introduced to EUPHA in Copenhagen 2011. Scientific studies document that participation in cultural activities can have a positive influence on health, however, music as a specific cultural activity has only been explored empirically in studies with small samples. The present study originates from and was included in a well-established Danish tradition of Public Health studies - the Danish Health and Morbidity Surveys - with a representative sample of adult Danes. The questionnaire included 8 music questions, addressing the participants' musical background, their use of music in daily life and their beliefs about music as a potential health factor. Research questions: 1) Is there an association between self-rated health/quality of life and active use of music in daily life? 2) What associations can be observed between musical background, uses and understanding of music as a potential health factor in daily life, and self-reported health?

Methods

Data were derived from the Danish Health and Morbidity Survey 2013. The survey was based on a simple random sample of 25,000 adult (16 years or older) Danes. In all, 14,265 (57%) individuals completed the questionnaire. Multiple logistic regression analyses were performed to investigate the associations between musical background/activities and the health-related indicators.

Results

25% of the respondents reported playing/singing min 1 hour daily. 77% reported that they 'To a high degree' (32%) or 'To some degree' (45%) considered music a resource to maintain good health. Respondents reported a variety of uses of music in everyday life, e.g.: For relaxation (65%), To regulate mood (50%), To get more energy (41%). More women than men are musically active, and age is an influential factor. Individuals who report to be musically active are more likely to report their health status as 'Excellent', 'Very good' or 'Good' than individuals that are not musically active.

Conclusions

A clear association between daily playing/singing and health and health-related quality of life was found. The results also indicate awareness among Danes that musicking may play an important role as a health-promoting activity.

Key messages

- The study documents that a majority of the informants use music to regulate physical and psychological states and processes. 77% of informants report believing in music as a health promoting factor
- The study documents the public health potential of singing, playing and music listening. It can inspire the design of musical activities to enhance health and life quality of specific target groups

Promoting Physical Activity in the Workplace: A Scoping Review of Systematic Reviews

Areeya Jirathananuwat

A Jirathananuwat[1,2], N Chaiyakunapruk[3], K Pongpirul[1,4,5]
[1]Department of Preventive and Social Medicine, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand
[2]Unit of Community Health, Faculty of Medicine Vajira Hospital, Navamindradhiraj University, Bangkok, Thailand
[3]Monash University Sunway Campus, Selangor, Malaysia
[4]Department of International Health, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, USA
[4]Thailand Research Center for Health Services System (TRC-HS), Faculty Medicine, Chulalongkorn University, Bangkok, Thailand
[5]Bumrungrad International Hospital, Bangkok, Thailand
Contact: areeyuy@hotmail.com

Background

People with physical activity (PA) have lower risk of diseases, as compared to those with sedentary lifestyle. Evidence on the effects of PA promoting programs in the workplace was large enough and a number of systematic reviews (SR) and/or meta-analysis (MA) have therefore been published. However, heterogeneous conceptual frameworks/theories, varying sets of interventions being compared, and different outcome measurements limited generalization and practical applications. This paper is aimed to clarify the effects of interventions to promote PA in the workplace based on the evidence from SR/MA.

Methods

A literature search for SR/MA was done using PubMed, Web of Science, and Science Direct (January 2006-Febuary 2015). The PRECEDE-PROCEED model was used for classifying the interventions.

Results

Eleven SR/MA included 220 primary studies (133 randomized controlled trials). Seven conceptual frameworks were applied in these studies. Of 77 interventions identified, 33 (43%) and 23 (30%) focused on enabling or reinforcing employees to have more PA, respectively. Sixteen enabling interventions were instrument-dependent (ie. pedometer); 10 were program-based, and 7 were health service provision. The reinforcing approaches were individual monitoring (11), incentive (6), and social support (6). The remaining interventions focused on predisposing factors (8), environment (6), and policy (7). Objective measurements of the outcomes could be categorized into expenditure quantification and physiological assessment with/without special instruments.

Conclusions

Majority of interventions focus on enabling or reinforcing employees to have more PA in the workplace.

Key message

- This scoping review identified common conceptual frameworks/theories, classified interventions using appropriate framework, and described various outcome measurements of PA promoting interventions

Participant views on principles for action in Dutch community-based physical activity programs

Marion Herens

M Herens, A Wagemakers, L Vaandrager, M Koelen
Wageningen University, Social Sciences Group, Chair group Health and Society, Wageningen, The Netherlands
Contact: marion.herens@wur.nl

Background

Physical inactivity is a core risk factor for non-communicable diseases. In the Netherlands, socially vulnerable groups are less physically active than groups with higher socio-economic status. Community-based physical activity (CBPA) programs, aimed to empower socially vulnerable groups by improving health and well-being through physical activity, often revolve around group-based principles for action, such as participation, enjoyment and fostering group processes. As these principles are rarely made explicit in CBPA programs, our study identifies group-based principles for action considered relevant by participants.

Methods

Respondents ($n = 76$) of ten focus groups scored their appreciation of group-based principles for action based on statements using a three-point scale. Opinions were further discussed in focus groups. Focus group transcripts were analysed, using thematic and data driven procedures.

Results

Statements about participatory programming generated less consensus than statements about enjoyment and fostering group processes. Participants feel somewhat involved in content development of a program. Involvement in group formation or community initiative were not quite perceived as something within participants' control. Enjoyment was found as individual driver for group exercise. Fostering group processes, expressed as social support, was found contributing to enjoyment and learning achievements. Responsive leadership, and enthusiasm of an exercise trainer acting as role model, were identified as additional principles for action.

Conclusions

Fostering group processes is an 'overarching' principle, conditional for the spin-off in terms of enjoyment and participation, which, in turn, lead to participants' sense of ownership and responsibility for the exercise group and one's own behaviour. CBPA programs drive on participants having fun together and trainers' leadership. A competent, responsive exercise professional plays a key role in the organisation and maintenance of CBPA programs.

Key message

- Community-based physical activity programs for the socially vulnerable drive on having fun together and trainers' leadership. Fostering group processes is conditional for enjoyment and participation

Modifiable risk factor and healthy ageing in a geriatric population living in nursing home

Sara Bartolucci

A Collamati[1], A Poscia[2], S Bartolucci[2], N Magnavita[2], F Landi[1], R Bernabei[1], G Onder[1]
[1]Department of Gerontology, Orthopedics and Neuroscience, Università Cattolica del Sacro Cuore di Roma, Italy
[2]Public Health Department, Università Cattolica del Sacro Cuore di Roma, Italy
Contact: sara.bartolucci1@gmail.com

Healthy ageing has been defined as the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age. Althought it has been demostrated that few common modifiable risk factors should be controlled as soon as possible in life in order to reduce the burden of most non-communicable diseases, less is known about their real impact on health outcomes in an already old population. This study aims to describe the survival in a geriatric population living in nursing home according to their lifestyle.

The Services and Health for Elderly in Long TERm care (SHELTER) project is a cross-sectional analysis that has collected information on residents admitted to 57 nursing home in 8 countries through the interRAI instrument for long-term care facilities. All the available informations about healthy ageing determinants (smoking and alcohol habits, BMI, pysical activity and social involvement) were used to predict the overall survival through a Cox regression analysis adjusted for age, sex and comorbidities.

3966 patients were included in the study; 74.2% were women. The mean age was 84,6 years. At baseline, 4,8% were smoker, 12.9% drinked at least one drink, 34,0% were inactive, 25,2% were obese or underwheight and 33.3% declared no social interest. An overall survival improvement was found in older adults with higher BMI ($HR = 0.58$, $p < 0.01$), more intensive pyisical activity ($HR = 0.58$, $p < 0.01$) and social involvement ($HR = 0.65$, $p < 0.01$), while underwheight was associated with higher mortality ($HR = 1.37$, $p = 0.01$). Smoking habit and alcohol consumption had, respectively, negative ($HR = 1.25$) and positive ($HR = 0.76$) impact on survival ($p > 0.05$).

In our population, modifiable risk factors and social involvement still play an important role in improving the overall survival. In ageing societies the cultural and economic investiment in prevention could have important benefits also in oldest individuals.

Key messages

- Healthy ageing should ideally start in childhood and take a lifelong perspective but it is never too late to start
- Caregiver should encourage older people in chosing healthy lifestile and stay active

8.P. Regular workshop: Assessing health system performance in Switzerland, the Czech Republic, Malta and Italy

Organised by: Berlin University of Technology /European Observatory on Health Systems and Policies
Contact: ewout.vanginneken@tu-berlin.de

Chairs: Ewout van Ginneken, Ellen Nolte

Health systems across Europe are facing common challenges such as demographic change (ageing) and rising expenditure. Moreover, many European countries are still grappling with the effects of the 2008 financial crisis. In overcoming these challenges, performance assessment has become an increasingly important pillar of health policy making. This coincides with a vast increase in available data and the capacity for measurement over the last decade due to improvements in information technology and measurement methodology. However, merely presenting long tables or detailed narratives of caveats will not automatically direct policy-makers to appropriate responses and can lead to misinterpretations, and abuse of comparative information (Papanicolas and Cylus 2015).

This workshop will discuss the methodology used for performance assessment in Health System in Transition (HiT) reviews. The HiT series covers the WHO European

Region as well as some additional OECD countries and provides detailed country-based reports on health systems and policies that are regularly updated. The health system reviews are based on a common template that is revised periodically. We will use four examples of performance assessments from recently published or soon to be published HiT reviews. These include the Czech Republic, Italy, Malta and Switzerland.

The approach to assessing health system performance is based on that of WHO's World Health Report 2000. Assessments take into account all areas of the health system, including public health services, mental health care, social care and intersectoral approaches towards improving health determinants and health. The performance assessment section was strengthened during the 2010 HiT template revision after a broad consultation with experts. Monitoring is carried out using a standardized country-template that collates data on financial protection and equity in financing; user experience and equity of access to health care; health outcomes, health service outcomes and quality of care; health system efficiency; and transparency and accountability.

The aim of this workshop is to discuss the results of four performance assessments with a wide audience of researchers and policymakers interested in performance assessment and its impact on policy. Furthermore, the workshop will, through plenary discussion and debate, challenge health researchers, practitioners and policy-makers from across Europe to think about the directions that health system performance is taking. Lastly, the audience will be informed about future developments in HiT performance assessment.

Key messages

- There is a large untapped potential for health performance assessment in Europe
- Measuring performance is an increasingly important facet of health systems research, which is being enabled by the availability of more robust and timely data

The performance of the Czech health system: untapped potential for efficiency gains and health improvement

Anne Spranger

J Alexa[1], L Rečka[2], J Votápková[2], E Van Ginneken[3], A Spranger[3], F Wittenbecher[3]
[1]Czech Ministry of Finance, Prague, Czech Republic
[2]Charles University, Prague, Czech Republic
[3]Berlin University of Technology, Germany
Contact: anne.spranger@tu-berlin.de

Background

This assessment reviews the performance of the Czech health system. The statutory health system is centralized with the Ministry of Health and seven quasi-public health insurance funds in 2014 as major players. Since the early 1990s the Czech health system has undergone various reforms and transformations. This assessment seeks to provide insight into the effect of these reforms.

Methods

The assessment builds on the extensive country monitoring by the European Observatory on Health Systems and Policies through its Health Systems in Transition (HiT) health system reviews. Monitoring is carried out using a standardized questionnaire that collects data on financial protection and equity in financing; user experience and equity of access to health care; health outcomes, health service outcomes and quality of care; health system efficiency; and transparency and accountability.

Results

The population of 10.5 million people enjoys virtually universal coverage and a broad range of benefits, and some important health indicators are better than the EU averages (such as mortality due to respiratory disease) or even among the best in the world (in terms of infant mortality, for example). On the other hand, the standardized death rates for diseases of the circulatory system and malignant neoplasms are well above the EU28 average. The same applies to a range of health care utilization rates, such as outpatient contacts and average length of stay in acute care hospitals, both of which are high. Additionally, there is still an abundance of inpatient capacities.

Conclusion

There is substantial potential in the Czech Republic for efficiency gains and to improve health outcomes.

The performance of the Maltese health system: An idiosyncratic story

Natasha Azzopardi Muscat

N Azzopardi Muscat[1,2], Kenneth Grech[1,2], Neville Calleja[2]
[1]Department of Health Services Management University of Malta
[2]Directorate for Health Information and Research, Malta
Contact: natasha.azzopardi-muscat@um.edu.mt

Background

This assessment reviews the performance of the Maltese health system. The public health care system is provided through an integrated model and is free of charge at the point of use. The private health care system accounts for one third of expenditure particularly, primary health care. The system has not undergone any major reforms in financing or provision for decades but is under pressure because of a steadily aging population impacting on the sustainability of public finances.

Methods

The assessment builds on the extensive country monitoring by the European Observatory on Health Systems and Policies through its Health Systems in Transition (HiT) health system reviews. Monitoring is carried out using a standardized questionnaire that collects data on financial protection and equity in financing; user experience and equity of access to health care; health outcomes, health service outcomes and quality of care; health system efficiency; and transparency and accountability. It also builds upon the work towards the first comprehensive health system performance assessment at national level.

Results

Maltese citizens enjoy a high life expectancy although there are indications that this is stagnating. The system was mostly unaffected by the financial and economic crisis as expenditure continued to grow over the past years. The health system suffers from important supply constraints, notably hospital beds, nursing and other human resources. These have been accentuated by the rapid population growth through immigration. Epidemiologically, the system also has to cope with one of the highest rates of obesity in Europe with its attendant consequences.

Conclusion

Notwithstanding the structural limitations, the health system has performed relatively well over the past decades. However there remains considerable room for improvement in ensuring timely access to high quality care and effective utilisation of scarce resources.

The performance of the Italian Health System under fiscal constraints

Antonio Giulio DeBelvis

F Ferrè[1], AG DeBelvis[2], L Valerio[2], S Longhi[2], A Lazzari[2], G Fattore, W Ricciardi[2], A Maresso[3]
[1]CERGAS Bocconi University, Milan, Italy
[2]Catholic University Rome, Italy
[3]European Observatory, Brussels, Belgium
Contact: debelvis@rm.unicatt.it

Background

This assessment reviews the performance of the Italian Health System. Italy's health-care system is a regionally organized National Health Service (SSN) that provides universal coverage largely free of charge at the point of delivery. Since the early 2000s the health-care system has been undergoing a process of devolution with redistribution of powers from the central government to the regions. Meanwhile, the fiscal crisis has put the SSN under strain; regions had to contain or even reduce health spending. This assessment aims at providing insights into the effect of these reforms

Methods
The assessment builds on the extensive country monitoring by the European Observatory on Health Systems and Policies through its Health Systems in Transition (HiT) health system reviews. Monitoring is carried out using a standardized questionnaire that collates data on financial protection and equity in financing; user experience and equity of access to health care; health outcomes, health service outcomes and quality of care; health system efficiency; and transparency and accountability.

Results
Italy spends about 9.1% of its GDP on health and covers over 61 million people. Reforms have stabilised the regional deficits and the national benefit package continues to be provided. However, current fiscal constraints put a strain on health services. This poses the risk that the regional health systems will continue to perform differently in terms of service delivery and that the gap between the north and south persists. Indeed, heterogeneity in access to services and quality of care is detected especially across regions and socioeconomic status.

Conclusion
The recent healthcare reforms, both at national and regional level, provide evidence of the challenging time for SNN sustainability. This may hold important lessons for other European countries.

The performance of the Swiss health system: good results but high costs

Wilm Quentin

C de Pietro[1], P Camenzind[2], I Sturny[2], L Crivelli[1], S Edwards-Garavoglia[3], A Spranger[3], F Wittenbeche[3], W Quentin[3]
[1]University of Applied Sciences and Arts of Southern Switzerland (SUPSI), Switzerland
[2]Swiss Health Observatory (Obsan), Neuchâtel, Switzerland
[3]Department of Health Care Management, Berlin University, Berlin, Germany
Contact: wilm.quentin@tu-berlin.de

Background
The Swiss health system is characterized by a particularly complex institutional set-up with decision-making power shared between different levels of government, corporatist actors, and the people who can veto or demand reform. All residents are insured by Mandatory Health Insurance, which provides coverage to a comprehensive benefits package. Health expenditures per capita were US$ 6,062 in 2012 - the second highest in Europe after Luxembourg.

Methods
The assessment builds on the extensive country monitoring by the European Observatory on Health Systems and Policies through its Health Systems in Transition (HiT) health system reviews. Monitoring is carried out using a standardized questionnaire that collects data on financial protection and equity in financing; user experience and equity of access to health care; health outcomes, health service outcomes and quality of care; health system efficiency; and transparency and accountability.

Results
Life expectancy in Switzerland is the highest in Europe after Iceland, and healthy life expectancy is several years above the EU average. Patients are highly satisfied with the health system, perceive quality to be good or very good, and there are virtually no waiting times. Financial protection of Swiss households from the costs of medical care is good but more limited than, for example, in Austria, Germany, or the Netherlands. Low income households contribute a greater share of their income to the financing of the health system than higher income households. Flawed financial incentives exist at different levels of the health system, potentially distorting the allocation of resources to different providers.

Conclusion
The Swiss health system is highly valued by patients and scores very well on a broad range of indicators. However, a great challenge for Swiss policy makers remains controlling the high and rising costs of the health system.

4. POSTER WALKS

1.W.L. Poster walk: Social security, work and health

Role of financial and residential factors for mental health in precariously employed young people

Per-Olof Östergren

PO Ostergren, C Canivet
Social Medicine and Global Health, Lund University, Sweden
Contact: per-olof.ostergren@med.lu.se

Several studies have confirmed a negative impact of precarious employment on mental health among young people. However the mechanisms of this are less known.

Aim

The aim of this study was to investigate to what degree financial difficulties and residential marginalization are mediating factors of the association between precarious employment and poor mental health.

Methods

The study utilized information from 786 individuals between 18–34 years of age who provided information at baseline (2000) and both follow-ups (2005 and 2010) of the Scania Public Health Cohort surveys performed in southern Sweden. Mental health was assessed by the GHQ12 instrument, information about precarious employment by a multifaceted instrument, financial difficulties and residential marginalization (lack of ownership of apartment/house), was collected at all three surveys. The potential mediators were introduced step-wise in a logistic regression model.

Results

The increased risk, adjusted for age and gender, for developing poor mental among individuals with a precarious employment situation was 57% (RR = 1.57; 95% CI 1.13–2.18), introducing financial difficulties and residential marginalization into the model reduced the increased risk to 35% (RR = 1.35 95% CI 0.95–1.92), i.e. about 40% of the effect could be mediated by those factors. In the final model RR for financial difficulties was 1.64 (95% CI 1.16–2.32) and for residential marginalization 1.28 (95% CI 0.90–1.92)

Conclusions

Financial difficulties and residential marginalization seemed to mediate slightly less than half of the effect of precarious employment on poor mental health among young individuals. Financial difficulties also had an independent statistically significant effect on poor mental health in this group. The policy implication is that adequate unemployment insurance would buffer a significant proportion of the negative effect of precarious employment on young peoples' mental health.

Key messages

- Financial difficulties and residential marginalization seemed to mediate slightly less than half of the effect of precarious employment on poor mental health among young individuals
- The policy implication is that adequate unemployment insurance would buffer a significant proportion of the negative effect of precarious employment on young peoples' mental health

European Validation of ISCO-based Job Exposure Matrices using EWCS 2010

Lars Eric Kroll

LE Kroll, S Müters, J Höbel, T Lampert
Epidemiology and Health Monitoring, Robert Koch-Institute, Berlin, Germany
Contact: l.kroll@rki.de

Background

In Public Health effects of work on health are usually either measured using multi-item scales or using constructs for an occupations socio-economic status. There's lack of scales that allow clues on working conditions when there is only information on occupation. We constructed job exposure matrices based on ISCO-88 and ISCO-08 for overall physical and psychosocial job exposures, carcinogenic agents as well as physical exhaustive work and validated it using the European Working Conditions Survey 2010.

Method

The Index itself is based on a German sample of men and women aged 15+ years (n = 20.036). 39 workplace characteristics were assigned to 3 multi-item (overall, physical, psychosocial strain) and 2 single-item scales (carcinogenic agents, physical exhaustive work). Scales were constructed using multi-level linear regression models using ISCO digits as levels (controls: sex, age, job experience and working hours). Validation is done by EWCS (n = 43.816, 34 countries) for self-perceived health risks, hazards at work, self-rated health status and a health symptoms score.

Results

It was possible to assign values to 99% of the EWCS sample. The mean job index was associated with prevalence of all health outcomes on the country level (r = .28 to .51). In country specific regression models (controls: age, sex, working hours and experience in current job), all three indices were significant predictors for all health outcomes in 33 of the 34 countries analyzed. The association with was strongest for overall physical and overall health risk score.

Discussion

The generated Job Indices are validated proxy variables for domain specific health risks at work in Europe. They can be used as explanatory and control variables as well as to describe study samples. Using the ISCO-08 and ISCO-88 classification schemes, the indices may be used with survey data as well as with process produced data from health insurances or pension funds.

Key messages

- The generated Job Indices are validated proxy variables for domain specific health risks at work in Europe
- Using the ISCO-08 and ISCO-88 classification schemes, the indices may be used with survey data as well as with process produced data from health insurances or pension funds.

Implementation of Croatia's Domestic Violence Legislation

Gordana Pavlekovic

G Pavlekovic
Andrija Stampar School of Public Health, School of Medicine, University of Zagreb, Croatia
Contact: gpavleko@snz.hr

Background

Domestic violence is a serious problem in Croatia. According to a 2010 survey, domestic violence affects one in three families, and up to 40% of Croatian citizens know at least one victim of domestic violence. Women are overwhelmingly the target: they make up only 3–12% of the perpetrators but 70–83% of the victim.

Methods

The review of Croatian domestic violence legislation since 2003 was done and compare with their implementation in practice using focus group of representatives from different sectors: health, social and well-fare, education, police, judgment/court, female groups and media.

Results

SWOT analysis shows that a legal framework to prevent, protect and solve the existing problem is done on the best way.

The weaknesses are in implementation policy into practice. The presentation will describe positive experiences and problems in protocol implementation. Majority of challenges are based on (a) confusion in the classification, (b) absence of new guidelines, (c) limited ability to obtain protective measures, (d) limited facilities for puerpetors psychosocial treatment, (e) lack of intersectoral collaboration and (f) lack of professional internal and external motives to deal with this problem.

Conclusion

While Government of Croatia has taken important steps to combat domestic violence, monitoring revealed that the state must undertake additional measures in primary, secondary and tertiary prevention.

Key messages

- Despite domestic violence is recognized as one of a major public health problem due to prevalence and costs
- Health and public health professionals are still so far away to be fully engage in its recognition and management

Effects of individual tailored vocational rehabilitation in young adults with disabilities

Åsa Andersén

Å Andersén[1], K Larsson[1,2], P Kristiansson[1], Ingrid Anderzén[1,3]
[1]Department of Public Health and Caring Sciences, Uppsala University, Uppsala, Sweden
[2]Department of Neurobiology, Care Sciences and Society, Karolinska Institutet, Stockholm, Sweden
[3]Occupational and Environmental Medicine, Uppsala University Hospital, Uppsala, Sweden
Contact: asa.andersen@pubcare.uu.se

Background

Young adults (19–29 years) with disabilities who are not studying or working are a vulnerable group in society. Unemployment at a young age can result in negative consequences such as impaired health and economy, and reduced participation and influence in society. The purpose of this study was to evaluate an individual tailored vocational rehabilitation program aiming to increase work capacity and facilitate return to work for young adults with disabilities.

Method

A randomized study with data collected through registers and questionnaires ($n = 130$) at baseline and completed participation in the rehabilitation program, during autumn 2012 to spring 2014. The program consisted of a close collaboration of officials from the Swedish Sickness Insurance Agency, and the Swedish Public Employment Services and the local municipality who worked together with the participants to support their rehabilitation process. The intervention was based on the participants' own needs and goals with an individualized plan to make contact with the labor market. The participants were offered various activities and courses based on individual needs. Data were analyzed with paired t-Test and Chi2-test.

Results

Preliminary results showed increased self-efficacy over time for the participating women (mean value from 2.4 to 2.6, $p < 0.05$). No change was found for self-rated health. Participants reported an increased ability to perform lighter duties ($p < 0.05$) and the ability to work more hours per day compared to baseline ($p < 0.05$). At the end of the intervention 31% had begun to work or study and 70% believed they had good chances to get a job within a year.

Conclusion

Key success factors were the collaboration between officials from the different agencies, the good treatment and the individualized methods.

Key message

- Collaboration and individually tailored vocational rehabilitation increase the opportunity for young adults with disabilities to begin work or study

The prevalence and associated factors of depression in policing: A cross sectional study in Sri Lanka

Nuwan Wickramasinghe

ND Wickramasinghe[1], SB Agampodi[1], PR Wijesinghe[2], SD Dharmaratne[3]
[1]Department of Community Medicine, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka
[2]Epidemiology Unit, Ministry of Health, Colombo, Sri Lanka
[3]Department of Community Medicine, Faculty of Medicine, University of Peradeniya, Peradeniya, Sri Lanka
Contact: nuwick74@yahoo.com

Background

Policing is regarded as a high-risk profession for developing mental health disturbances due to various critical incidents and potential traumatic events they encounter. Exploration of mental health issues in policing in Sri Lanka, which recently concluded a civil war expanded over three decades, is a timely, yet, neglected issue. Hence, the present study was conducted to determine the prevalence and associated factors of depression among police officers in Kandy police division, Sri Lanka.

Methods

A cross sectional study was conducted using a simple random sample of 750 police officers employed in the Kandy police division. A self administered questionnaire, including "Peradeniya Depression Scale", was used to collect data. The prevalence of depression was calculated with 95% Confidence Intervals. Multivariable logistic regression was carried out using backward elimination method to quantify the association between depression and selected predictors identified at bivariate analysis at $p < 0.1$.

Results

The response rate was 94.5% ($n = 709$). The mean age of the sample was 39.6(SD 9.2) years. Majority were males ($n = 591$, 83.4%). The estimated prevalence of depression was 22.8% (95% CI 19.9%-26.1%). In multivariable analysis, satisfactory welfare facilities at work place was negatively associated with depression (adjusted $OR = 0.5$; $95\%CI = 0.3–0.7$). Satisfaction of the opportunity to serve the public (adjusted $OR = 0.2$; 95% $CI = 0.1–0.6$) and satisfaction related to social status gained in policing (adjusted $OR = 0.5$; 95% $CI = 0.3–0.8$) emerged as significant factors that lowered the likelihood of having depression.

Conclusions

The prevalence of depression among police officers was found to be higher in comparison to other study findings in Sri Lanka. Given the modifiable nature of the significant predictors, it is recommended to design a package of interventions and implement adaptive measures to rectify the problems related to depression among police officers.

Key message

- Addressing the magnitude and predictors of depression in policing in Sri Lanka against the backdrop of understanding the dynamics of police reforms in post-conflict era, is of utmost importance

Health characteristics of young people not in employment, education or training in France in 2011

Pierre Chauvin

S Robert[1,2], S Lesieur[1], V Kergoat[3], J Dutertre[3], P Chauvin[1]
[1]Inserm, UMRS 1136, Pierre Louis Institute of Epidemiology and Public Health, Department of Social Epidemiology, Paris, France
[2]Sorbonne Universités, UPMC Univ Paris 06, Faculty of Medicine Pierre and Marie Curie, Department of general practice, Paris, France
[3]Mission locale, Sénart, France
Contact: pierre.chauvin@inserm.fr

Background

In France, the Missions locales are in charge of providing assistance for young people not in employment, education or training (NEETs). In average, they receive between 10 and 15% of young people aged 16–25 years living in their territory, i.e.

more than 1.5 million people every year. The health conditions of this population have never been studied in France. Our objectives were to describe their health status and their socioeconomic characteristics, and to compare them with those of the general population of the same age.

Methods

The PRESAJE survey was conducted on a randomized sample of 1453 young adults (aged 18–25 years) who attended five Missions locales in mainland France in 2011. Data were analysed and compared with those of participants of the same age interviewed in a French national health survey (Baromètre Santé 2010, N = 2899) and in a cohort (SIRS, N = 204) conducted in the Greater Paris area, both in 2010.

Results

NEETs' social profiles are diverse but their living conditions are globally more difficult than those of the general population. They accumulate health-related vulnerability factors: limited health insurance, low level of education, numerous adverse experiences during childhood, and social isolation. Some of their health indicators are remarkably poor: 19.2% (95% CI = 17.1–21.2) have a chronic disease – versus 8.2% (95% CI = 7.0–9.4) of participants of the Baromètre santé ($p < 0.001$), 31.9% (95% CI = 26.8–37.1) are overweight or obese (versus 17.9%, 95% CI = 16.3–19.6, $p < 0.001$), 19.6%,(95% CI = 15.2–23.9) are depressed (versus 7.3% (95% CI = 3.8–10.9) of participants of the SIRS survey, $p < 0.001$).

Conclusion

Careful attention must be given to young NEETs. This numerous and growing group of the French population is not familiar with health care services but their health needs are important. Integrating health services into the Missions locales may help detecting their health problems and facilitate their linkage to primary care.

Key messages

- In France, NEETs' health is poorer than that of the general population of the same age. They accumulate vulnerability factors: limited health insurance, low level of education and social isolation
- Integrating health promotion and social medicine consultations in social services dedicated to the NEETs may help them to access to health care and subsequently to job market

Prevalence of mental disorders in Kazakhstan population exposed to radiation

Pivina Lyudmilla

NE Glushkova[1], TK Rakhypbekov[2], KZh Baildinova[2], TI Belikhina[3], LM Pivina[4], AR Alimbayeva[2], ZhK Smailova[2], ZhZh Toktarova[2], A Kassymova[2], MA Gazaliyeva[6], MR Izmailovich[6], BK Zhumabekova[7], AG Kuanysheva[2]

[1]Department Internship on General Practice and Endocrinology, Semey State Medical University, Semey, Kazakhstan
[2]Semey State Medical University, Semey, Kazakhstan
[3]Research Institute for Radiation Medicine and Ecology, Semey, Kazakhstan
[4]Regional Oncological Center, Semey, Kazakhstan
[5]Department of Internal Diseases, Semey State Medical University, Semey, Kazakhstan
[6]Department of immunology and allergology, Karaganda State Medical University, Karaganda, Kazakhstan
[7]The Course of Professional Diseases, Karaganda State Medical University, Karaganda, Kazakhstan
Contact: deep-woods@mail.ru

Nuclear tests at the Semipalatinsk test site has involved the hundreds of thousands people living at the territory of Kazakhstan in radio-ecological catastrophe.

The aim of our study is to assess the dynamics of prevalence rates for mental disorders in the Kazakhstan population exposed to radiation in the result of nuclear tests.

We have conducted the descriptive epidemiology and statistical analysis for the rates of mental disorders in the three representative groups of population, based on the screening examination in the period 2007–2012. Main group included 5,327 people living in Abay, Abralinsky and Beskaragay districts of East-Kazakhstan area (range of effective radiation doses 250–499 mSv); comparison group – 4,115 inhabitants of Zharma district (effective radiation doses 200–249 mSv); control group included 3,267 people arrived to the studied territories after 1990 and not exposed to radiation.

Prevalence rates of mental disorders in the both main and comparison groups significantly exceeded control rates for the all period of study. Average annual odds ratio (OR) in the main group was 1.37 compared with control. For the comparison group OR was 1.19; it means considerable uncertainty in interpretation of such differences with control rates and allows to assume the peculiar dose threshold for forming of additional cases of these diseases. Such range of doses could be exceeding 250 mSv and corresponds to the dose diapason in the main group. Prevalence rates of mental disorders in this group throughout the study were significantly higher than control rates and fluctuated in the range 226.8–242.6 cases per 1000 population. In the structure of mental disorders in all studied groups average proportion of neurotic disorders was 22, 6%; disorders of adaptive reactions −13.1%, neurasthenia −12.6%, mild mental retardation −12.1 %, disorders of educational skills −12.0%.

Results of the study show the relation between indirect radiation exposure and increased level of separate mental disorders in the offspring of the population exposed to radiation.

Key messages

- Prevalence rates of mental disorders in the group of exposed to radiation people significantly exceeded the control rates
- The greatest concern is caused by the identification of radiation risk groups represented by the off-springs born from exposed population

Cancer effects in the offspring of the people exposed to radiation in Kazakhstan

Pivina Lyudmilla

NE Glushkova[1], TK Rakhypbekov[2], KN Apsalikov[3], MN Sandybayev[4], B Apsalikov[2], MR Madiyeva[2], KZh Baildinova[2], GA Tanysheva[2], LM Pivina[5], TI Belikhina[3], AR Alimbayeva[2], ZhK Smailova[2], ZhZh Toktarova[2], OB Andreyeva[2]

[1]Department Internship on General Practice and Endocrinology, Semey State Medical University, Semey, Kazakhstan
[2]Semey State Medical University, Semey, Kazakhstan
[3]Research Institute for Radiation Medicine and Ecology, Semey, Kazakhsta,
[4]Regional Oncological Center, Semey, Kazakhstan
[5]Department of Internal Diseases, Semey State Medical University, Semey, Kazakhstan
Contact: deep-woods@mail.ru

It is known that after radiation exposure it could be latent period for realization of cancer effects. Therefore, now we can expect to find cancer effects in the people who were exposed in the childhood in the period of nuclear tests on the Semipalatinsk Test Site (1949–1963).

The study objective was to analyze the cancer morbidity in the offspring of exposed to radiation population twenty years after the closure of the Semipalatinsk nuclear test site.

Methods

Information about cancer cases was sampled from the database of the State Medical Register of the Kazakhstan population exposed to radiation for the period from 2008 to 2012 using a family selection principle. The main study group included 965 people who were born from 1949 to 1962 and living in ten villages with average radiation dose 634 mSv. Control group was representative by age and sex and included 920 non-exposed people.

Results.

For the all period of study it was found significant exceeding of cancer prevalence in the main group compared with control: 317.7–338.4 per 100,000 versus 151.4–163.1 per 100,000 (RR = 2.08; CI 1.87; 2.32). Digestive cancer, lung cancer and female breast cancer prevailed in the structure of cancer diseases (average rates 24.6%; 23.8%; 14.7% respectively) in the both groups. Age distribution of cancer prevalence shows increased rates in the age groups 20–29; 30–39 years compared with control where malignances were typical for age 40 years and older.

Conclusion

Increased prevalence of malignant neoplasms in the people exposed to radiation in the childhood confirms our assumption about radiation-induced cancer effect of small doses. The child's organism has a high radiation sensitivity which leads to the cancer effects in adulthood. It should be continued study the radiological situation in the territories adjacent to the Test Site after the cessation of nuclear tests to clear the radiation health effects.

Key messages

- The study represented that the effect of small doses could increase cancer prevalence in younger groups of affected population
- There are urgent needs to continue detailed study in people and they offspring exposed in the childhood in the period of activity on the Semipalatinsk Nuclear Test Site

Effects of long-term radiation exposure to hypertension events in offspring of irradiated parents

Pivina Lyudmila

NE Glushkova[1], KZh Baildinova[2], AR Alimbayeva[2], ZhZh Toktarova[2], ZhK Smailova[2], AA Kassymova[2], ZhE Musdubayeva[2], GK Kalimoldina[2], ZhM Urazalina[2], LM Pivina[3], TI Belikhina[4], KD Turlybekova[2], ZA Khismetova[5], AG Kuanysheva[2]

[1]Department Internship on General Practice and Endocrinology, Semey State Medical University, Semey, Kazakhstan

[2]Semey State Medical University, Semey, Kazakhstan

[3]Department of Internal Diseases, Semey State Medical University, Semey, Kazakhstan

[4]Research Institute for Radiation Medicine and Ecology, Semey, Kazakhstan

[5]Department of Public Health and Informatics, Semey State Medical University, Semey, Kazakhstan

Contact: deep-woods@mail.ru

Even a lot of studies before there is no clear evidence regarding long-term effects of radiation-induced heritable risks of adult-onset multifactorial diseases in humans, although it is important from the standpoint of protection and management of populations exposed to radiation.

Purpose

The aim of the study was to assess whether parental exposure to radiation influence to an increased risk of disorders in the autonomic regulation and lipid metabolism in the first-generation offspring (F1) of parents exposed by doses 250 mSv> as a result of nuclear tests at the Semipalatinsk test site.

Methods

595 F1 patients with hypertension aged 35 ± 10 years, and 430 non-exposed residents with hypertension which arrived on these territories after closing of nuclear testing in 1990 and living there > 5 years matched for age and gender were studied. It was performed correlation analysis of radiation doses, rates of lipid metabolism and heart rate variability (HRV) in F1, and control group.

Results

In the studied group disorders of lipid metabolism were registered in 50.5 %, versus 31.1 % in control group ($p < 0.01$). Hyperhomocysteinemia was found in 52.4 % of the people included to studied group versus 29.5 % in the control group; increased level of triglycerides in 48.3 % and 31.3 % respectively; increased level of low-density lipoproteins in 50.9 % and 32.6 % respectively ($p < 0.01$; 0.01; 0.01). The strongest correlation with radiation dose in the studied group was found for the rates of standard deviation of NN intervals (SDNN, mc) which characterize the efficiency of autonomic regulation ($r = 0.726$, $p < 0.01$), low-frequency waves (LF, ms2/Hz) ($r = 0{,}523$, $p < 0.01$), and total disorders of vegetative regulation ($r = 0.623$, $p < 0.01$). Strong and medium correlation was found for separate indicators of lipid metabolism and hyperlipidemia in general ($r = 0.483$, $p < 0.01$).

Conclusions

Disorders of vegetative regulation and lipid metabolism play important role in the pathogenesis of hypertension in the offspring of people exposed to radiation and may lead to premature development of cardiovascular diseases (CVD).

Key messages

- The indicators for prediction of hypertension development could be used in the system of monitoring of exposed to radiation people and their offspring
- Their measurement has to be used in regular screening of cardiovascular diseases

Length of accumulated sick leave and later work absence

Magnus Helgesson

M Helgesson[1], B Johansson[2], L Wernroth[3], E Vingård[1]

[1]Department of Medical Sciences, Occupational and Environmental Medicine, Uppsala University, Uppsala, Sweden

[2]Occupational and Environmental Medicine, Uppsala University Hospital, Uppsala, Sweden

[3]Uppsala Clinical Research Centre, Uppsala University, Uppsala, Sweden

Contact: magnus.helgesson@medsci.uu.se

Background

Sweden has a public and easily accessible sickness insurance. Research shows downsides to taking sick leave, both shorter and longer periods of sick leave have been seen to increase the risk for future work absence. The aim of this study was to investigate whether there was an association between accumulated duration of publicly financed sick leave in 1993 and work absence in the subsequent 15 years. A further aim was to explore differences in this relation with regard to gender, origin and educational level at baseline.

Methods

Our cohort consisted of all immigrants aged 21–25 years in Sweden in 1993 and a control group of native Swedes in the same age group. The employer covered the first weeks of sick leave and register data for that period was missing among persons with an employer.

Results

The most rapid increase in future work absence was seen for the first 1–7 days of publicly financed sick leave. Thereafter there was a lower, but steady increase in days of future work absence for every increase in days of accumulated sick leave.

Conclusion

There was an increasing propensity for work absence 1994 to 2008 for every increase of accumulated sick leave in 1993.

Key messages

- Sick leave duration are connected to future work absence
- Also short periods of publicly financed sick leave in Sweden increased the risk of future work absence

Conceptual Approaches to Disability Determination

Diane Brandt

D Brandt, E Rasch, L Chan

National Institutes of Health, Bethesda, Maryland, USA

Contact: brandtdi@cc.nih.gov

Contemporary notions of disability view the phenomenon as the gap between individual capabilities and environmental demands. Examining disability relative to participation in the labor market, leads us to a decisional crossroad: determining the ability to work or not. We are challenged to reduce a complex, multi-faceted process into a dichotomous outcome. This decision is further complicated by our understanding that functional abilities differ among individuals and all members of society operate in environments that may help or hinder their function.

Our approach to measuring work-related functioning was guided by the World Health Organization (WHO) International Classification of Functioning (ICF). This framework provided a common language to use across health care disciplines and across sectors of the government. The ICF also influenced our decision to examine and measure functioning at the activity level, focusing on domains related to learning and applying knowledge; general tasks and demands; communication; mobility; self-care and interpersonal interactions and relationships.

Historically, the SSA disability programs premised award determination upon impairment severity. Although still a part of the disability determination process, consideration for the resultant influence of impairment severity on functioning is emerging. It is logical to assume that work is "participation" from an ICF perspective. However, participation reflects the interaction between individual capabilities and environmental demands. Thus, inability to work requires disaggregating environmental influence from physical capabilities. In order to understand the distinct factors influencing work, individual capabilities as well as workplace demands and critical features of the workplace environment must be captured. Once measured separately, the outcomes will eventually have to be realigned in order to determine the fit between individual capabilities and workplace demands.

Key messages

- Discern conceptual gaps associated with the historical underpinnings of the SSA disability evaluation process and current conceptual perspectives of disability
- Understand the influence of exogenous pressures and the complexities of implementing the nation's largest disability programs

Factors Affecting Domestic Violence against Women in Bangladesh

Md Rashed Alam

MdR Alam, MdR Islam[2]
Population Science and Human Resource Development, University of Rajshahi, Bangladesh
Contact: mrasps29@gmail.com

Along with various aspects of population problem, domestic violence against women is an important issue. Violence against women is a global epidemic that kills, tortures, and maims at physically, mentally and sexually. The aim of this study is to determine the factors connected with domestic violence against women in Bangladesh using Bangladesh Demographic and Health Survey (BDHS) 2007 data. This study contains 10,146 currently married women out of 10,996 ever married women, because the study is mainly domestic violence related. The χ^2 test and logistic regression technique are used in this study. Findings signify that women in the age group 25–34 are more likely to report ever having experienced domestic violence, which is the highest (45.4%) number among the age group. The result revealed that the respondent's who are involved in manual occupations are mostly domestically violated compared with the non-manual and unemployed respondents. Respondent's education, number of children and occupation are the key determinants of domestic violence. It is found that majority of the respondents who have no education are mostly violated, which is about 44%, compared with those who have some educational qualification. In logistic regression analysis the respondent who have 3 and more children are violated and comparatively poor are mostly violated than rich. The prevalence of domestic violence decreases due to increase of educational level. Age at first marriage is directly related to the domestic violence and about 41.8% respondent's who get married before the age of 18 years has experienced domestic violence. The study mainly focuses on increased educational level and economic stability and then finds out the domestic violence prevention Mechanisms through national law and international human rights obligations.

Key message

- The prevalence of domestic violence decreases due to increase of educational level

Is occupational prestige an independent risk factor for lung cancer?

Thomas Behrens

T Behrens[1], I Groß[1], J Siemiatycki[2], DI Conway[3], KH Jöckel[4], A Olsson[5], H Kromhout[6], K Straif[5], J Schüz[5], J Hovanec[1], B Kendzia[1], B Pesch[1], T Brüning[1]
[1]Institut für Prävention und Arbeitsmedizin der Deutschen Gesetzlichen Unfallversicherung (IPA), Institut der Ruhr-Universität Bochum, Bochum, Germany
[2]Hospital Research Center (CRCHUM) and School of Public Health, University of Montreal, Montreal, Canada
[3]Dental School, College of Medicine Veterinary and Life Sciences, University of Glasgow, Glasgow G2 3JZ, UK
[4]Institut für Medizinische Informatik, Biometrie und Epidemiologie, Universität Duisburg-Essen, Essen, Germany
[5]International Agency for Research on Cancer (IARC), Lyon, France
[6]Environmental Epidemiology Division, Institute for Risk Assessment Sciences, Utrecht University, Utrecht, The Netherlands
Contact: behrens@ipa-dguv.de

Background

We studied the association between lung cancer and the level of time-weighted average occupational social prestige as well as occupational prestige's lifetime trajectory.

Methods

We included 11,433 male cases and 14,147 male control subjects from the international pooled SYNERGY case-control study. Each job was translated into an occupational social prestige score by applying Treiman's Standard International Occupational Prestige Scale (SIOPS) and categorized as low, medium, and high prestige (reference). We calculated odds ratios (OR) and 95% confidence intervals (CI), adjusting for study center, age, smoking, ever employment in a job with known lung carcinogen exposure, and education. Trajectories in SIOPS categories from first to last and first to longest job were defined as consistent, downward, or upward. We conducted several sensitivity analyses to assess the robustness of our results.

Results

In the fully adjusted models we observed increased lung cancer risk estimates for men with medium (OR = 1.23; 95% CI 1.13–1.33) and low occupational prestige (OR = 1.44; 95% CI 1.32–1.57). Adjustment for smoking habits and education attenuated these associations. Risk estimates for low prestige were elevated among non-smokers (OR = 1.65; 95% CI 1.14–2.40) and subjects working in white collar occupations (OR = 1.30, 95% CI 1.13–1.49). Subjects with a college/university degree did not show elevated risk estimates. Associations with downward prestige trajectories were only slightly elevated.

Conclusions

Our results indicate an independent association between occupational prestige and lung cancer.

Key messages

- Education and smoking were important risk factors, but did not fully explain the association between social occupational prestige and lung cancer
- Occupational exposures to carcinogenic agents and loss of occupational prestige over the work life contributed only marginally to the observed associations

Educational differences in disability retirement among young employees

Hilla Sumanen

H Sumanen, O Rahkonen, O Pietiläinen, E Lahelma, E Roos, J Lahti
Department of Public Health, University of Helsinki, Helsinki, Finland
Contact: hilla.sumanen@helsinki.fi

Aims

Disability retirement among young employees is an increasing problem affecting public health and work life, given the potential major loss of working time. Previous studies regarding educational differences in the risk of disability retirement among young employees are limited, despite the need for such knowledge in targeting preventive measures. We examined the association between education and disability retirement due to any cause and to mental and non-mental causes among young employees.

Methods

Personnel register data of the City of Helsinki for 25-to-34-year-old employees (N = 41830) were linked to register data from the Finnish Centre for Pensions on disability retirement (n = 381), and from Statistics Finland on education. Education was categorised into four hierarchical groups. The mean follow-up time was 5.7 years. The analyses were performed using Cox regression analysis.

Results

There were 381 disability retirement events altogether. Over 70% of the events were due to mental disorders and 72% were temporary. A consistent educational gradient was found. Those with a basic education were at the highest risk of disability retirement due to any cause (HR 4.64, 95% CI 3.07, 7.02), and to mental (HR 4.79, 95% CI 2.89, 7.94) and non-mental causes (HR 4.32, 95% CI 2.10, 8.91).

Conclusions

A clear educational gradient was found in disability retirement due to any cause, and to mental and non-mental causes. Early intervention, treatment and rehabilitation with a view to maintaining work ability are needed among young employees, especially those with low levels of education. Adapting working conditions to their health and work ability may also help to avoid premature exit from work.

Key messages

- Educational differences in the risk of disability retirement are evident even among young, 25–34-year-old employee.
- Early interventions are needed among young employees in order to avoid premature exit from work

Rotating night shift work and obesity among nurses and midwives in Poland

Beata Peplonska

B Peplonska, A Bukowska, W Sobala
Department of Environmental Epidemiology, Nofer Institute of Occupational Medicine, Lodz, Poland
Contact: beatap@imp.lodz.pl

Background

Results of some epidemiological studies suggest that night shift work may contribute to increased body weight and abdominal obesity. The aim of our study was to examine this association among nurses and midwives working in fast rotating system.

Methods

The cross-sectional study was carried out between 2008–2011 in Łódź and included as many as 724 women (354 rotating night shift and 370 daytime workers), aged 40–60 years. During in person interviews, information about occupational history, lifestyle and potential confounders was collected. Anthropometric measurements of body weight, height, waist (WC) and hip (HC) circumferences were performed, and body mass index (BMI), waist to hip ratio (WHR) and waist to height ratio (WHtR) were calculated. Obesity or abdominal obesity were specified with use of the following cutoffs: BMI $\geq 30\,kg/m^2$, WC >88 cm, HC ≥ 108 cm, WHR >0.85, WHtR >0.55. Univariate and multivariate regression models were used to explore the association between night shift work characteristics and anthropometric parameters, with adjustment for important confounders.

Results

Current night work was significantly associated with obesity (BMI $\geq$ 30 kg/m2), with OR = 1.5 (95%CI:1.0–2.3) and OR = 3.9 (95%CI:1.5–9.9) in women reporting 8 or more night duties per month. A higher frequency of night shifts ($\geq$8 night per month) was also associated with abdominal obesity OR = 2.8 (95%CI:1.3–6.0) for HC, OR = 2.4 (95%CI:1.2–4.9) for WHR and OR = 2.7 (95%CI:1.3–5.6) for WHtR. Lifetime history of night shift work showed statistically significant associations with each measured anthropometric parameter except for WHR.

Conclusion

The results of the study support the previously reported relations between night shift work and obesity.

Key messages

- Work at night might promote development of the obesity
- Further prospective studies are warranted to confirm these findings

Association of Farming with COPD

Sung-Soo Oh

S Oh
Occupational and Environmental Medicine, Wonju, South Korea
Contact: oss0609@yonsei.ac.kr

Objective

This study aims to investigate whether farming is an independent risk factor of Chronic obstructive pulmonary disease (COPD) subjects and what are risk factors of farmers with COPD in Korea.

Method

This cross-sectional study used data from the 2007 Korean Genomic Rural Cohort (KGRC) study. A total of 9,659 subjects underwent spirometry among 10,111 of the KGRC. COPD was defined as forced expiratory volume in 1 second (FEV1)/ forced vital capacity (FVC) ratio is less than 70%. The study subjects were categorized into those with farming and non-farming occupations by re-classification after determining their occupations using Korea's Standard Occupation Classification System. Multiple logistic regression analysis were performed to compare various risk factors including metabolic markers and health behaviors of farmers with non-farmers.

Result

The prevalence in farmers and non-farmers were 16.7% and 7.2%, respectively. Notably, this study showed that farming is a significant independent risk factor (OR = 1.44; 95% CI = 1.18–1.75) after adjusting for other potential risk factors such as age, gender, education level, smoking, and body mass index (BMI). In farmers, C-reactive protein and HOMA-insulin resistance (IR) were significant factors compared with non-farmers. Metabolic markers including BMI, visceral fat, and HOMA-IR were significantly low in farmers with COPD compared with non farmers with COPD.

Conclusion

These findings indicate that farming is an independent risk factor of COPD and low body weight plays a significant role in developing COPD in farmers with COPD in Korea.

Key message

- It is that Cause of COPD in farmers in Korea is different from general population

Mothers' and fathers' perspectives on parental support in Sweden

Camilla Pettersson

J Hulldin, M Larsson, C Eriksson
Faculty of Medicine and Health, School of Health and Medical Sciences, Örebro, Sweden
Contact: camilla.pettersson@oru.se

Background

To promote health, prevent ill-health and reduce risk behaviors among adolescents are prioritized public health goals in many countries. Both mothers and fathers are important persons in young people's lives and they can have an impact on the development and health of their children. By offering parental support to parents, the society has a chance to achieve these public health goals. So far, research has mainly focused on the effects of parental support programs. In addition, we need to understand what kind of support attracts parents and the importance of different arenas and actors delivering parental support.

Methods

A survey was mailed to parents with children 11, 13, 15, 17 years old. In two Swedish municipalities, a questionnaire was sent to either those mothers or fathers (n = 710, response rate: mothers 47 %, fathers 37 %). The questionnaire included questions about perceived need of parental support, experience and knowledge of parental support and potential actors and arenas of interventions.

Results

There were clear differences between mothers' and fathers' perceived need of parental support, experience of participation in parental support interventions and knowledge about existing support. Mothers were more likely than fathers to score high on all these perspectives. Mothers were also more likely to use their private networks to give and receive support in their parenthood. The majority of the parents thought that the society should offer parental support and the school was the most attractive arena.

Conclusion

Gender is an important factor to be included in research about parental support. It is necessary for reaching a better fit between what kind of interventions the professionals' supply and what kind of support the parents demand.

Key messages

- Parental support offered by the society should attract both mothers and fathers
- To achieve an evidence-base practice we need to better include the perspectives of mothers and fathers in planning, implementation and evaluation of parental support interventions

Injury prevention in Finland among people under 25 years 2009–2014

Ulla Korpilahti

U Korpilahti, L Kolehmainen, A Lounamaa
Department of Welfare, National Institute for Health and Welfare (THL), Helsinki, Finland
Contact: ulla.korpilahti@thl.fi

Issue

National action plan for injury prevention among children and youth in Finland, published in 2009, has had the vision that Finnish children and young people live stimulating, but safe lives and health losses due to injuries are decreased. THL, national research and expert agency under the Ministry of Social Affairs and Health (MSAH), has coordinated the program. It includes 216 objectives and proposed measures to promote and prevent unintentional and self-inflicted injuries.

Description of the problem

Each year around 122 Finnish children and young people under the age of 25 die by accidental injuries and 13,500 are hospitalized.

Results

(a) National action plan was widely distributed. The target of the program, the responsibility of implementation and monitoring of it are split into and responsibility taken by a number of partners.

(b) According to the Finnish Child Safety Report Card 2012, legislation, statistics and data resources in Finland in 2011 were in a good level when compared to other European countries. Monitoring and the leadership still need to be improved.

(c) Deaths from accidental injuries among Finnish children and young people have continually decreased since the 1970's. Injuries still cause a lot of health losses and still are the leading cause of death under the age of 25. In the whole target group, most accidental injuries (83%) occur to 15–24 year olds. Alcohol is a contributing factor in 25% of accidental deaths among age group 15–24 years.

Lessons

Action plan is important to be approved by the MSAH. That made possible and empowered the national level activities and promoted a network of cooperation between the different actors.

Main messages

In order to be successful a national action plan requires high level recognition and adequate resources. For systematic work, implementation and monitoring at least two fulltime persons are necessary for program coordination.

Key message

- In order to be successful a national action plan requires high level recognition and adequate resources. For systematic work at least two fulltime persons are necessary for program coordination

Thyroid cancer in the population living around Semipalatinsk nuclear testing site, Kazakhstan

Mayra Espenbetova

M Espenbetova[1], N Glushkova[1], B Atantayeva[2], Zh Zamanbekova[1], A Dyussupova[1], K Amrenova[1], O Yurkovskaya[1], Zh Zhumanbayeva[1], A Krykpayeva[1]
[1]Department Internship on General Practice and Endocrinology, Semey State Medical University, Semey, Kazakhstan
[2]Regional Oncology Center, Semey, Kazakhstan
Contact: espenbetova@inbox.ru

Introduction

Thyroid gland is highly sensitive to the radiation-induced oncogenic effects. 456 nuclear explosions were conducted in the Semipalatinsk Nuclear Test Site, Kazakhstan. Regional Oncology Center centrally registered all cases of thyroid cancers for the last decades. Further analysis of collected data may permit us to find a gap in study of radiation-induced thyroid cancers. The aim was to assess the incidence, mortality and structure of thyroid cancer in population of former Semipalatinsk region, Kazakhstan in 2003–2013.

Methods

Information about all cancers of the thyroid gland registered in the Semipalatinsk Regional Cancer Registry during 2003–2013 was analysed.

Results

Total number of the studied cases was 338 for last decade. The analysis revealed stable rate of the thyroid cancer incidence from 2003 to 2013 (8.0 per 100,000). The same situation was in the mortality rate from all types of thyroid cancer (0.8 per 100,000). In the total histological structure dominated A-cell origin papillary carcinoma – 85.63% and follicular carcinoma – 11.83%, after C-cell origin medullary carcinoma – 1.53% and less than other B-cell origin poorly differentiated carcinoma – 1.01%. It has to be noted that all diagnosis was established and operated in early stages with the exception related only to poorly differentiated carcinoma.

Conclusions

The study observed a stable rate of the incidence and mortality from all types of thyroid cancer in past decade but still one of the highest in Kazakhstan. Diagnostics in early stages became possible with implementation of screening programs in the areas around the Semipalatinsk Nuclear Test Site.

Key messages

- A lot of people are still suffering from long-term effects of testing nuclear weapons in Kazakhstan
- The best practice of rehabilitation of exposed populations around Semipalatinsk Nuclear Test Site should be implemented

New Methods for Work Disability Assessment – Computer-Adaptive Tests (CATs)

Alan Jette

A Jette[1], E Marfeo[1], C McDonough[1], P Ni[1], K Bogusz[1], D Brandt[2], L Chan, M Meterko[1], E Rasch[2]
[1]Boston University, Boston, USA
[2]National Institutes of Health, Bethesda, Maryland, USA
Contact: brandtdi@cc.nih.gov

The Disability Insurance program of the US Social Security Act, provides earnings replacement insurance for over 20 million workers, covering earnings loss in the event of a work disability. As the number of work disability claims continues to rise, efforts to improve the efficiency and accuracy of the Social Security Administration (SSA)'s Work Disability decision process are increasingly important. In its 2007 report entitled, "Improving the Social Security Disability Decision Process", the Institute of Medicine committee recommended the development of new approaches to work disability determination, including the creation of standardized functional assessment approaches. Item-response theory (IRT) and computer adaptive test (CAT) assessment of function may be a promising means to provide the SSA with feasible functional assessment tools that can inform the evaluation of a claimant's ability to engage in substantial gainful employment activity. CAT methodology uses a computer interface that is tailored to the unique ability level of each person to be assessed, allowing for fewer items to be administered, while providing assessment precision, breadth and efficiency.

This presentation will provide an introduction to IRT/CAT measurement techniques and describe the multidimensional work disability functional assessment instruments developed for the US SSA Work Disability Insurance Program. I will present data on a recently completed calibration study with 3000 claimants to the US SSA's Disability Insurance Programs (Disability Insurance and Supplemental Security Income programs) and a normative sample of 2000 adults living across the US.

Key messages

- Indicate how Computer Adaptive Tests could potentially improve SSA's disability determination processes
- Indicate the importance and relevance of this work for national social security programs and national policy-making

Mental health symptoms as predictors of future mental sickness absence

Marieke Van Hoffen

MFA van Hoffen[1,2], *CI Joling*[1], *MW Heymans*[2], *JWR Twisk*[2], *CAM Roelen*[1,2]
[1]ArboNed, Utrecht, The Netherlands
[2]Department of Health Sciences, division Epidemiology and Biostatistics, VU University Medical Center, VU University, Amsterdam, The Netherlands
Contact: marieke.van.hoffen@arboned.nl

Background

Mental health problems are a leading cause of long-term sickness absence (LTSA). Workers at risk of mental LTSA should preferably be identified before they report sick. The objective of this study was to examine mental health symptoms as predictors of future mental LTSA in non-sicklisted workers.

Methods

Two-wave longitudinal study including 4877 postal workers not sicklisted at baseline (wave 1). Mental health symptoms were measured at wave 1 (November 2010) and wave 2 (May 2011) with the Four-Dimensional Symptom Questionnaire (distress and depressed mood) and Maslach's Burnout Inventory (fatigue). Mental health symptom scores at wave 2 and score changes between waves 1 and 2 were analyzed against mental LTSA retrieved from an occupational health register from June 2011 through May 2013. The area under the receiver operating characteristic curve (AUC) was considered as measure for the ability of (changes in) mental health symptoms to discriminate between workers with ('cases') and without ('non-cases') mental LTSA during follow-up.

Results

Distress fairly ($AUC = 0.72$; 95% CI 0.61–0.89) and both depressed mood ($AUC = 0.68$; 95% CI 0.58–0.78) and fatigue ($AUC = 0.67$; 95% CI 0.57–0.77) poorly discriminated between cases and non-cases. The discriminative ability did not improve by combining mental health symptom scores ($AUC = 0.72$; 95% CI 0.63–0.82). Changes in mental health symptom scores between waves 1 and 2 did not add to discrimination by wave 2 symptom scores only.

Conclusions

The Four-Dimensional Symptom Questionnaire distress scale identified non-sicklisted workers at risk of future mental LTSA. Neither the combination nor changes of mental health symptom scores improved discrimination between cases and non-cases of mental LTSA. These findings challenge further studies investigating distress scales as tools to screen working populations for risk of mental LTSA.

Key messages

- Distress identifies which non-sicklisted workers have an increased risk of future long-term sickness absence due to mental disorders
- Neither the combination nor changes of mental health symptoms improved discrimination between workers at high and low risk of long-term sickness absence due to mental disorders

1.W.P. Poster walk: Health services and systems research

Health services and health literacy: a 2014 literature review

Leonardo Capecchi

L Capecchi[1], *C Lorini*[2], *A Baldasseroni*[3], *BR Porchia*[1], *G Bonaccorsi*[4]
[1]School of Specialization in Hygiene and Preventive Medicine, University of Florence, Florence, Italy
[2]Department of Health Science, University of Florence, Florence, Italy
[3]Tuscany Regional Centre for Occupational Injuries and Diseases (CeRIMP), Florence, Italy
[4]Department of Clinical and Experimental Medicine, University of Florence, Florence, Italy
Contact: leonardocapecchi@inwind.it

Background

The aim of this study is to make a critical analysis of the different recent definitions of health literacy to provide an evolutionary framework of the concept.

Methods

A literature search was conducted with the purpose of extracting the reviews addressing the definition of health literacy. The following databases were explored for this search: Pubmed, Embase, psycINFO, ERIC, Health Evidence, Centre for reviews and dissemination and Cochrane Library. Google was searched as well to investigate unpublished works.

Results

Among the more than 7000 papers selected with our search strategy, we extracted 62 works that satisfied the query for title and type of study. After screening for summary/full text, we selected only 26 of these works. The concept of literacy within the health sphere was introduced for the first time in the USA during the seventies, referring to an individual skill that mainly involves familiarity with the terms or numbers of typical medical matters. During the 1990s, authors began to study the relationship between health literacy and health status, and the concept was developed according to a typical public health view, i.e., the ability of a group or a community to deal successfully with the Health System. In the first decade of the new century, a new definition established three progressive degrees of health literacy: functional (the original meaning of the term), interactive (a more developed ability related to relationships), and critical (the ability to evaluate, decide and influence health matters). Sorensen (2012) systematised the former definitions in an all-encompassing model and provided a framework for the development of new assessment tools and interventions for the improvement of health literacy, at both the individual and population levels.

Conclusions

The improvement of people's health literacy must be considered a powerful tool for the development of a new type of relationship between individuals and the Health System.

Key message

- The definition of health literacy is crucial for the development of universally adopted measurement/improvement tools. This concept is acquiring increasingly interest among the public health community

Estimating the Burden of Injuries Among the Métis Nation of Alberta, Canada

Sara Parker

DC Sanchez-Ramirez[1], *S Parker*[2], *A Barner*[2], *Y Chen*[3], *D Voaklander*[1,3], *LW Svenson*[1,4]
[1]School of Public Health, University of Alberta, Edmonton Canada
[2]Métis Nation of Alberta, Edmonton, Canada
[3]Alberta Centre for Injury Control and Research, Edmonton, Canada
[4]Alberta Ministry of Health, Edmonton, Canada
Contact: lsvenson@ualberta.ca

Background

The Métis represent one of three recognized Aboriginal groups within Canada. The term Métis is used to describe people with mixed First Nations and European heritage, who have their own distinct culture and traditions. Little information exists on the burden of injuries in this population. The present study examined injury-related health services use (hospital admissions and emergency department visits) and mortality among members of the Métis Nation of Alberta comparing results with the whole Alberta population.

Methods

This population-based descriptive study used administrative data maintained by the Alberta Ministry of Health (AH), for the year 2013. Hospital inpatient and emergency department data as well as Alberta Vital Statistics mortality data were linked using a unique personal health number. To identify injury and mortality cases among the Métis Nation of Alberta people, administrative databases were deterministically linked to the Métis Nation of Alberta Identification Registry. Age-standardized rates of injury-related health services usage were analyzed.

Results

Age-standardized incidence rates (ASIR) for all causes of injury combined were significantly higher with emergency department (ED) and hospital admissions being 35% ($p < 0.01$) and 26% ($p = 0.05$) higher, respectively than the non-Métis population. ASIRs for health services use were also higher among the Métis living in rural areas ($p < 0.01$) and among men ($p < 0.01$). Injury-related mortality did not differ between the Métis and non-Métis populations. However, among the Métis, Males had significantly higher injury mortality rates than females ($p < 0.05$).

Conclusions

Results from the present study suggest that injuries are important aspects to be addressed with Métis people. Health planners should design and implement strategies directed to reduce the burden of injury and associated complications for Métis people, especially in the rural area and among Métis males.

Key messages

- Injuries are a significant health burden within the Métis population, particularly when compared to the general Alberta population
- Rural living was associated with a higher injury rate among the Métis population

The contribution of technological innovation to in-patient mortality and 30-days readmissions

Vanessa Ribeiro

V Ribeiro[1], *J Perelman*[2]
Universidade Nova de Lisboa - Escola Nacional de Saúde Pública, Portugal
Contact: vanessaicr@gmail.com

Background

New technologies are challenging for health systems because they usually impose a high financial burden for limited benefits. In a recent study for Portugal, we showed that technological innovation for ischemic heart disease (IHD) increased expenditures by 27% over the 1997–2012 period. The present study examines assesses the impact of technological changes in in-patient mortality and 30-days readmission for IHD over the same period.

Methods

This is an observational retrospective study, using data for all IHD in-patient discharges at all Portuguese public hospitals from 1997 to 2012 ($n = 313.230$). We first modeled the likelihood of in-patient mortality and readmission as function of a time trend, using logistic regressions; then, we estimated how this trend was mediated by technological innovation, measured by the introduction of coronary bypass, thrombolysis, and angioplasty with stents.

Results

In-patient mortality rate increased from 7.5% in 1997 to 7.8% in 2012. The 30-days readmission rate decreased from 2.6% to 1.9% over the same period. The time trend showed a 0.5% annual increase in mortality (OR 1,005; $p < 0.001$), which increased to 3.2% when adjusting for the technological innovation (OR 1,032; $p < 0.001$). The growth in in-patient mortality would have been 5 times greater in the absence of technological innovation. The time trend showed a 3.1% annual decrease in 30-days readmissions (OR 0,969, $p < 0.001$), which decreased to 2.1% when adjusting for the technological innovation (OR 0,979; $p < 0.001$). The decline in readmissions would have been 32% lower in the absence of technological innovation.

Conclusion

The technological innovation to treat IHD substantially limited the growth in in-patient mortality while boosting the reduction in readmissions. These findings show that the growth in expenditure was justified by substantial gains in public health.

Key message

- Technological innovation to treat ischemic heart diseases substantially limited the growth in in-patient mortality and increased the reduction in readmissions

Minor psychiatric disorders and their associations among family caregivers in mental health

Carlos Treichel

CAS Treichel, VMR Jardim, LP Kantorski, AS Neutzling, ML Vasem, MM Oliveira, VCC Coimbra
Nursing Departament, Universidade Federal de Pelotas, Pelotas-RS, Brazil
Contact: carlos-treichel@hotmail.com

Background

The replacement of the asylum by community-based psychosocial rehabilitation services for people with mental disorders in Brazil rescued the family as the subject of care. However, even with positive feelings about the individual in psychological distress, relatives that assume the role of caregivers are exposed to situations that provide anxiety and burden, favoring emotional illness. Thus, this study sought to trace the occurrence and associations of minor psychiatric disorders in family caregivers, in community-based mental health services.

Methods

This is a cross-sectional study of 1164 family caregivers of users from 40 mental health community services in southern Brazil. This cutoff integrates the research CAPSUL II held in 2011. For the tracking of minor psychiatric disorders, Self-Reporting Questionnaire scale (SRQ20) was used. An adjusted binary logistic regression was conducted considering a hierarchical model developed through literature review. Statistical significance was set at p-value <0.05.

Results

Minor psychiatric disorders were screened in 546 (46.9%) of the 1164 individuals studied. Under the adjusted analysis it is fit to highlight the association with health problems OR: 2.63 (95% CI: 1.95 to 3.55); High burden index OR: 5.16 (95% CI: 1.63 to 16.36); Not receiving support from the service OR: 2.89 (95% CI: 2.06 to 4.07).

Conclusions

Given the prevalence estimated by WHO for the general population, it can be noted that family caregivers compose a risk group for the manifestation of minor psychiatric disorders. The combination of factors such as health problems, burden and lack of service support suggests that this is a reality in which the service can intervene. It is therefore necessary that the development of public policies in regard to community mental health care, also consider this group as the focus of their actions.

Key messages

- Family caregivers in mental health compose a risk group for the manifestation of minor psychiatric disorders
- It is necessary that the development of public policies in regard to community mental health care, also consider the family caregivers as the focus of their actions

Impact of the adequate use of antenatal care on the prevention of the preterm birth

Sonela Xinxo

S Xinxo
Institute of Public Health Tirana, Albania
Contact: sonelak@yahoo.com

The promotion of a healthy lifestyle should also include an adequate use of the health service during whole life. The aim of the study is to bring modestly our evidence of the impact of adequate antenatal care on the prevention of development of preterm birth.

Methods

A case control study was carried out on the Obstetrical University Hospital of Tirana, Albania during the 2012. A total of 200 women who had a birth in term (37–40 week of gestation) were compared with 400 women who had a preterm birth (< 37 week of gestation) regarding the antenatal care use. The data on the first time of the antenatal visit and number of the antenatal visits were collected through a direct questioner after delivery at the hospital The Kotelchuck index was used to define the reported antenatal care as inadequate, intermediate and adequate.The logistic regression was used to measure the impact of adequate use of antenatal care on the development of preterm birth. A $p < 0.05$ is considered significant.

Results

The majority of the women in the study had reported an adequate use of antenatal care (77 %) and only 23 % had reported an intermediate or inadequate use of antenatal care.The women who reported an adequate use of antenatal care were less likely to have a preterm birth when they compared to the women with inadequate or intermediate use of antenatal care (OD = 0.3, $p < 0.05$)

Conclusion

A adequate antenatal care can play a crucial role on prevention of the of preterm birth. The increasing of awareness of women of reproductive age on the importance of the adequate antenatal care (time of first antenatal visit and number of antenatal visits) should be part of national and regional intervention tackling the improvement of mother and child well being.

Key message

- Adequate antenatal care use prevent the development of preterm birth

New Mental Health Performance Assessment tool: experimental cross-border application in Europe

Franziska Lohmeyer

F Lohmeyer, AA Teleman, W Ricciardi, ML Di Pietro
Dipartimento di Sanità Publica, Universita’ Cattolica del Sacro Cuore, Rome, Italy
Contact: franziska1.lohmeyer@gmail.com

Background

It is important to enhance knowledge exchange across borders in order to share best practices. It is still necessary to further develop specific mental health performance assessment (MHPA). The objective of this study was to investigate cure and care of mental disorders within community-based healthcare in the Euregio-Maas-Rhine (EMR) Region. This region is very interesting since it represents the intersection point between the Netherlands, Belgium and Germany.

Methods

Five performance assessments were chosen through literature review. From these performance assessments, elements were selected in order to develop a new MHPA specific for community-based mental health care. Literature and expert-interviews were consulted in order to analyze the characteristics of the healthcare model applied in the German and Dutch regions (Case management in Germany vs. Functional assertive community treatment in the Netherlands). A realistic, ideal typical patient case with moderate/severe major depression was created. The new MHPA was applied to the patient case within the two healthcare models.

Results

Both systems are flexible, patient-centered and include an evaluation of quality of care. Both regions provide financial and administrative support for healthcare access. The major difference that was found is that while in the Netherland care and cure is provided in one service, in Germany, services, treatments and therapies are all offered separately. Furthermore, the German approach provides services not only for mental disorders but also for mental deficiency and physical disabilities.

Conclusions

The new MHPA could be proposed as a valid tool for the evaluation and comparison of different community-based mental healthcare models. Furthermore, cross-border provision of care might be made difficult by a neighborhood-based approach.

Key messages

- We compared care and cure of mental disorders in the Case management and Functional assertive community treatment models
- We propose a new mental health performance assessment for community care

Patients’ experiences of lifestyle counseling: Large differences between US and Swedish primary care

Lars Jerdén

L Jerdén[1], P Jenkins[2], J Sorensen[2], H Johansson[3], J May[2], J Dalton[2], L Weinehall[3]
[1]Center for Clinical Research Dalarna-Uppsala University, Falun, Sweden
[2]Bassett Healthcare Network Research Institute, Cooperstown, USA
[3]Epidemiology and Global Health, Umeå University, Umeå, Sweden
Contact: lars.jerden@ltdalarna.se

Background

The role of primary care professionals in lifestyle counseling is receiving attention in many countries. A study comparing the USA and Sweden demonstrates large differences between the extent that primary care professionals report being engaged in counseling on lifestyle issues, and how important they perceive it to be (Weinehall et al. Counseling on lifestyle habits in the United States and Sweden. BMC Family Practice 2014;15:83). The aim of the present study was to compare patients' experiences of, and attitudes toward, lifestyle counseling.

Methods

Patients aged 30 to 75 years from two counties in Sweden and seven counties in Upstate New York who had recently visited doctors in primary care answered a phone survey. Survey questions were taken from an established instrument and were slightly modified for use in both countries.

Results

Preliminary results show that a great majority of patients in both countries regarded a healthy lifestyle and a normal weight as important for their health. This tendency was somewhat greater in the U.S. than in Sweden and U.S. patients were more interested in changing physical activity, eating habits and their weight than Swedish patients. However, there were no differences between the countries with regard to smoking and alcohol consumption. U.S. primary care providers were more likely to have initiated a discussion about eating, physical activity, weight and smoking during the last visit than Swedish providers (US 17% to 22%, Sweden 4% to 6%). Professionals rarely initiated discussions about alcohol in either country (US 1%, Sweden 2%). There was an equal demand among patients in both countries to receive support/advice regarding lifestyle modification.

Conclusions

U.S. patients regarded some key lifestyle habits as being more important than did Swedish patients, and they also received counseling to a much larger extent. Ongoing studies will explore these differences.

Key messages

- U.S. patients received lifestyle counseling to a much larger extent compared to Swedish patients
- U.S. patients also regarded some key lifestyle habits as being more important

OOH: demands, referral patterns, frequent attenders characteristics in a Veneto Region (Italy) LHA

Alessandra Buja

A Buja[1], R Toffanin[2], S Rigon[2], P Sandona[3], D Carraro[2], G Damiani[4], V Baldo[1]
[1]Department of Molecular Medicine, Public Health Section, Laboratory of Public Health and Population Studies, University of Padua, Italy
[2]Administrative Directorship, ULSS 4, Region Veneto, Italy
[3]Scuola di Specializzazione in Igiene e Medicina Preventiva, Universita' di Padova, Italy
[4]Department of Public Health, Universita' Cattolica del Sacro Cuore, Rome, Italy
Contact: alessandra.buja@unipd.it

Introduction

The aim of this study was to describe the characteristics of patients admitted to an Out-of-Hours service (OoHs), the related outputs and to analyse deeply the frequent attenders (FAs)'s phenomena.

Methods

This study was a retrospective cohort study on electronic population-based records, linked with the mortality registry and with patients' exemption from health care charges. A FA was defined as a patient with ≥ 3 contacts in 12 months. A logistic regression model was constructed to identify independent variables associated with this outcome.

Results

23,980 OoHs contacts (CTCs) in 2011 at a Local Health Authority in the Veneto Region were registered. Rates were higher for the oldest and youngest age groups and for females. More than half of CTCs concerned patients who were seen by a physician, about 1/3 of CTCs related problems managed by phone, about 10% of CTCs were referred to other services. Many factors, including demographic, process-logistic and clinical variables were associated with the decision to visit the patient (rather than provide a phone advice), or to refer patients to ED or to a specialist. Some OOH doctors were more likely than their colleagues to refer a patient to ED. FA status was associated with clinical variables (such as psychiatric disease), socio-demographic variables (sex, age and income level), and also with the feature of their GPs' association.

Conclusion

Our study shows that OoHs meet composite and variously expressed demands. The determining factors associated with cases referred to other health care services should be considered when designing clinical pathways in order to ensure a continuity of care. The unwarranted variability in OOH physicians' performance needs to be addressed. The determinants of OoHs FA include patients' clinical conditions, several socio-economic characteristics (including income level) and their GPs' organizational format.

Key message

- This is the first study found that also socio-demographic and logistic features of the contact change the propensity of OOH physician to refer patients to ED or to specialist visit.

Challenges in Public Health Systems Reform in Kosovo

Ilir Begolli

I Begolli[1,2], N Ramadani[1,2], D Zajmi[1,2], M Berisha[1,2], G Pavlekovic[3]
[1]National Institute of Public Health of Kosovo (NIPHK), Pristina, Kosovo
[2]Medical Faculty, University of Pristina, Kosovo
[3]Andrija Stampar School of Public Health, School of Medicine, University of Zagreb, Croatia
Contact: ilirbegolli@gmail.com

Background

Kosovo is facing with postwar problems, but main challenges are related to rapid social and economic changes. Social changes – from socialist system based on a high level of social and health rights to market-oriented society, are influencing mostly moral system of values, social cohesion and traditional social support. The main priorities for the Government of Kosovo are sustainable economic development, empowered role of law, promotion of public-private partnership, human capital development and social welfare.

Methods

Two methods were used aiming to give a ''state-of-art'' in Public Health System Reform in Kosovo: (1) review of health policy documents and (2) different focus group discussions with stakeholders involved in planning and implementing health strategies using SWOT analysis.

Results

In summary, results show: (1) lack of clarity – health system financing; (2) health personnel unsatisfied – payment; (3) no information on who offers what, when and where – organization; (4) no information on who is the head – legislation, and (5) fragmented and not sustainable investments in public health sector.

Conclusions

Application of health strategy is legging behind the policy towards health as a consequence of: (a) failure to financially and politically supports; (b) failure to support professionals in orientation towards PHC, (c) unclear issue of health activity in private practice, (d) unregulated environment to support and stimulate orientation towards embracing new health policy and health in all policies, and (e) lack of access to health services for everybody.

Key messages

- Many (formal) strategic documents at national level written by different ministers and accepted by the Parliament should support Public Health Systems reforms
- Financial and political support in implementation of legal acts, investment in human resources as well as monitoring and evaluation are essential in achievement Health 2020.

Mortality trends in medical and nursing professionals in Slovenia 1982–2014

Tit Albreht

T Albreht, M Omerzu, R Pribakovic Brinovec
National Institute of Public Health of Slovenia, Ljubljana, Slovenia
Contact: tit.albreht@nijz.si

Background

Mortality of health professionals in Slovenia has been the topic of interest of the respective professional associations, their trade unions and the public. It raises many questions whenever it deflects negatively from the average mortality patterns in the general population. Previous studies by Selb and Albreht (1999) and Selb (2005) showed premature mortality for female doctors. We decided to explore mortality of medical and nursing professionals again and compare it to the general population.

Methods

We calculated individual data of age at death for medical and nursing professionals by sex and by degree of education also for nursing professionals. We compared average ages at death for each group of professionals (medical doctor per sex, registered nurses and assistant nurses) with the general population by sex for the period 1982 to 2014.

Results

Male medical doctors equaled with the general male population in 1990 at the average age at death and in 2014 died 7 years later than the general male population. Contrary to their male peers, female medical doctors were dying even 12 years earlier than the general female population in 1999 and have reached the same level as the general female population in 2013 and 2014. Mortality among nursing professionals, especially those with vocational training, who are dying at least 12 years earlier than the general population, has not significantly improved during the last 20 years.

Conclusions

Mortality trends in medical professionals have been steadily improving over the past 25 years, men showing a higher average age at death than the general male population. Female doctors have recently caught up with the general female population overcoming the 12 years gap through the last 15 years. Situation with mortality in nursing professionals, both registered nurses and nursing assistants, raises concerns as they are dying significantly earlier (at least 12 years) than the general population.

Key messages

- Raising attention and awareness about the differences in mortality between health professionals and the general population
- Exploring the reasons arising from workplace that may impact the mortality gap

Monitoring of the postpartum review: access, adherence and organization of the healthcare service

Alexandrina Cardelli

BÉ Mairene Teixeira[1], *CA Parecida Maciel Cardelli*[1], *M Mara*[2], *FR Pimenta Ferrari*[1]
[1]Nursing Department, State of Londrina University, Londrina, Brazil
[2]Odontology Department, State of Maringá University, Maringá, Brazil
Contact: macielalexandrina@gmail.com

Background

The implementation of postpartum review in primary care has not yet been consolidated. It aimed to analyze the access, adherence and health service organization in puerperium.

Methods

Prospective cohort study based on Lalonde's Health Field Concept. The sample was composed of 429 puerperae. Data collection from july/2013 to march/2014 and divided into three sequential phases. We used the Chi-square Test, Fisher's exact Test ($p \leq 0.05$) and multivariate logistic regression Test to search for associations between the independent and dependent variable [Early Puerperal Home Review (EPHR) and Late Puerperal Review (LPR) in primary care] structured constructs in human biology, environment, lifestyle and health service organization.

Results

47.7% received the EPHR; and 63.1% not performed the LPR. The univariate analysis showed association between intrapartum complications ($p \leq 0.018$), Early Puerperal Outpatient Review ($p \leq 0.024$), exclusive breastfeeding ($p \leq 0.019$), EPHR ($p \leq 0.006$), scheduling of the LPR in the Home Visit (HV) ($p = 0.000$) and the health professional support after hospital discharge ($p \leq 0.029$) and the LPR. The multiple logistic regression, showed association of the EPHR ($p = 0.001$) (95% CI = 1,77–8,51) and of the scheduling of the LPR in the HV ($p = 0.000$) (95% CI = 0,10–0,62) with the LPR.

Conclusions

It was concluded that there is little effective action on the micro scale, evidenced by low home care coverage; vulnerability of women, suggested by the abandonment of comprehensive postpartum monitoring; risk exposure in self-care, translated by low demand for health care for puerperae; little effectiveness in the implementation of program activities with the possibility of negative consequences for the population. The hypothesis of this study was proved in part, because there was no association with the construct environment.

Key messages

- We aimed to analyze the monitoring of postpartum review in usual and intermediate risk, through access, adherence and health service organization in primary care, of the immediate to late puerperium
- We found low home care coverage; abandonment of comprehensive postpartum monitoring; risk exposure in self-care; possibility of negative consequences for the population

Patients' attitudes toward choice of primary care provider

Anna-Mari Aalto

AM Aalto[1], *M Chydenius*[2], *L-K Tynkkynen*[2], *T Vehko*[1], *T Sinervo*[1]
[1]Health and Social Systems research Unit, National Institute for Health and Welfare, Helsinki
[2]School of health Sciences, University of Tampre, Tampere
Contact: anna-mari.aalto@thl.fi

Background

Provided choice in health care has been advocated as a means to improve the quality of services but also as a value of its own right. In Finland, the new Health Care Act, launched in 2010, included an opportunity to choose health care provider in public sector as a new element. This study investigates the attitudes of primary care users toward choice and correlates of these attitudes.

Methods

The data is based on a survey for patients in health centers (HC) ($n = 8182$). The questionnaire included background information and attitude questions on choice of HC (awareness, importance, opportunity, sufficient choice relevant information).

Results

Majority (84 %) was aware of the opportunity to choose, but only 8% had actually changed HC. Older patients (60+) were more often aware of choice (OR = 4.00, (95% CI = 3.3–4.7), but younger patients (<60 years) had more often changed HC (OR = .47, (95% CI = 0.4–0.6). Patients valued choice highly (on scale 1–5: mean = 4.16, sd = 0.96) but their satisfaction with choice relevant information was lower (mean 2.96, sd = 1–30). Older ($F = 34.38$, $p < .001$) and less educated patients ($F = 26.81$, $p < .001$) valued choice more and regarded more often that they had a genuine opportunity and sufficiently information to choose (p values all <.001). Those with 6+ HC visits/year valued choice more than less frequent users ($F = 6.51$, $p = .002$) but they regarded less often that they had a genuine opportunity ($F = 8.19$, $p < 0.001$) and sufficiently information (F = 10.57, p < 0.001) to choose. Also those with chronic illnesses were less satisfied with choice relevant information (F = 9.36, p = 0.002).

Conlusions

Patients were aware of the opportunity to choose and valued choice highly, but only a small minority had actually changed HC. Satisfaction with choice relevant information was lower, particularly among frequent service users and those with chronic illnesses. Attention should to be paid to information needs of these vulnerable groups in making choices.

Key messages

- Patients value choice of health care provider but are not satisfied with availability of information on which to base choice
- More choice relevant information about the service should be produced

Health workforce crises in Latvia

Anita Villerusa

A Villerusa[1], Daiga Behmane[2], A Kokarevica[1], U Berkis[3]
[1]Department of Public health and epidemiology, Riga Stradins university, Riga, Latvia
[2]Faculty of Medicine Riga Stradins university, Riga, Latvia
[3]Department of Physics, Riga Stradins university, Riga, Latvia
Contact: Anita.Villerusa@rsu.lv

Background

An essential component of National health care system is to link the population's health needs, health care delivery targets with the supply of human resources, its distribution and productivity. Reforms carried out in the health care system in Latvia were not always in accordance with an adequate planning and effective use of human resources. Study was done as part of National Research Programme ECOSOC-LV.

The goal is to characterize the health care system workers, their dynamics since 2003 and to identify problems to ensure effective operation and competitiveness of the system.

Methods

The data from the Register of medical personnel and medical support staff maintained by Health Inspectorate and from Central Statistical Bureau were used.

Results

In 2013 in Latvia there were 6172 practicing physicians, or 30.8 per 10 000 inhabitants. Of these, 1313 (6.6 / 10, 000) were family doctors. Average provision with doctors did not change significantly since 2003. Analyses show several inequalities: in workload, salary, female prevalence, institutional exposure etc. The largest concentration of physicians was in capital city Riga- 62.3 /10 000, while in other parts of Latvia it was 2–8 times less. In the last 10 years this gap has significantly increased. Despite the increase in the number of graduates 44.5% of doctors are over the age of 50 years, even worse-27.9% are over the age of 60 years. In 2013 there were 13 883 practicing nurses and midwives, or 69.4 per 10 000 inhabitants. Situation in the capital city secures better- 116 / 10 000 than in regions. The average nursing / physician ratio is low −2.1 in comparison with many other European countries.

Conclusions

Increasing inequalities between urban and rural areas, between institutions and specialities and inequalities in the age structure are the main obstacles of system's effectiveness and limit the competitiveness of the sector. It is necessary to review the human resource development policy.

Key messages

- Improvement in workforce structure and planning is essential for reaching Health 2020 goals- as improvement of population's health, reducing inequalities and to ensure people centred health system
- The results are intended to be used to generate evidence-based human resource policy to guide the workforce sustainability in effective health care system and to reach Public health goals in Latvia

Inequalities in the utilization of health services in Serbia

Damir Bahtijarevic

J Jankovic[1], D Bahtijarevic[2], T Savu[2]
[1]Institute of Social Medicine, Faculty of Medicine, University of Belgrade, Belgrade, Serbia
[2]Faculty of Medicine, University of Belgrade, Belgrade, Serbia
Contact: drdamirbahtijarevic@gmail.com

Background

Although Serbia has a comprehensive universal health care system with free access to health services at the primary level, certain population groups like the most disadvantaged and low educated experience huge problems accessing them, which negatively affects their health. The aim of this study was to examine socio-demographic and health status inequalities by gender in the utilization of health services in Serbia.

Methods

Data from the 2013 Serbian National Health Interview Survey were used. 12 901 persons aged 25 years and over were interviewed. The association between socio-demographic factors (age, marital status, type of settlement, education and wealth index), self-perceived health and utilization of different types of health services were examined using logistic regression analyses.

Results

Significant differences were observed between gender and all socio-demographic variables except wealth index. As compared with women, men reported significantly lower utilization of general practitioner's (OR = 0.60; 95% CI = 0.56–0.66), specialist's (OR = 0.60; 95% CI = 0.56–0.65), private doctor's (OR = 0.62; 95% CI = 0.56–0.68), dentist's (OR = 0.77; 95% CI = 0.71–0.83) and emergency department's services (OR = 0.77; 95% CI = 0.67–0.88). Both males and females who belong to the most deprived class and those with low education were less likely to have visited specialist, dentist and private doctor. Low educated males visited a general practitioner significantly less often than their high educated counterparts. On contrary those who were older and perceived their health as poor were more likely to have visited general practitioner, specialist and to be hospitalized.

Conclusions

Socio-demographic and health status inequalities in the utilization of health services certainly exist in Serbia. Wise health policies with equitable use of health services and primary focus on the most disadvantaged socioeconomic groups are urgently needed.

Key words: health service utilization; health survey; inequalities in health, Serbia; social class.

Key messages

- Socio-demographic and health status inequalities in the utilization of almost all types of health services are evident in Serbia
- The results of the study might increase awareness among policy makers about the scope of inequalities in the utilization of health services and need for further studies

Socioeconomic Inequities of Access to Health Care in Italy: A Longitudinal Analysis

Valeria Glorioso

V Glorioso[1], Z Guennouna[2], F Massaro[2]
[1]Department of Social Reserach, University of MIlan-Bicocca, Milan, Italy
[2]Assobiomedica, Milan, Italy
Contact: valeria.glorioso@unimib.it

Background

since 1978, the Italian National Health Service was supported by a consensus that health care should be financed according to ability to pay but distributed according to need, thereby setting out equity objectives in terms of financial contributions and access to care. However, this goal is far from being completely achieved. Horizontal inequity of access to health care is seen as a major barrier to improving population health, hence, the extent to which such inequity manifests itself is considered a key indicator of the performance of any health care system.

Methods

using data from all the available editions −1994, 1999/2000, 2004/05, 2013 − of the Health Conditions and Health Care Utilization Survey, a large scale survey of a probability sample of the Italian population, and using multilevel logistic regression analysis, we estimate if and to what extent (a) the opportunities of Italian citizens with equal need to access a given set of health services (general practitioners visits, specialist visits, outpatient diagnostic tests, and inpatient hospital care) are associated with their SES; and (b) if the association between SES and access to health care varied over time, between 1994 and 2013.

Results

we found that (a) a significant positive association between SES and the probability to access the selected health services exists among the study population; (b) both the pattern and the intensity of this association do not vary significantly over the period of interest.

Conclusions

we conclude that some degree of socioeconomic inequity does characterize the realized access to health care in Italy. Moreover (alarmingly), this inequity has not changed significantly over 20 years. Addressing this issue might be an important policy goal for the Italian National Health Service.

Key messages

- Even countries with a universal health care system, like Italy, exhibit a certain degree of horizontal inequity of access to health care
- Alarmingly, no substantial change in inequity of health care utilization over time (1994–2013) has emerged.

Drivers of inequity in access to healthcare in Republic of Macedonia

Dance Gudeva Nikovska

F Tozija
Department of Social Medicine, Faculty of Medicine, University Ss Cyril and Methodius, Skopje, Republic of Macedonia
Contact: dgnikovska@gmail.com

Inequities in the health status are global problem, equally affecting rich and poor countries. Many attempts to quantify economic impact of health inequities have shown significant opportunities for savings if these inequities are reduced. Following the independence in 1991, Republic of Macedonia (RM) has faced numerous challenges in all sectors of the society, in transition towards development of parliamentary democracy and preserving social values and access to healthcare as a basic human right.

The goal of this study was to identify main social determinants of health (SDH) associated with access to healthcare and assessment if the health system provides for universal health coverage.

Nested case-control study was conducted on a sample of 605 households (HH) by face-to-face interviews, using selected modules from World Health Survey questionnaire. Cases are TB patients registered Jul, 2012 – Jun, 2013 and controls HH in their immediate vicinity.

Data was analyzed with SPSS 19.0, utilizing logistic regression to measure predictive value of most important SDH. 16.1% respondents didn't receive health care when in need in the past 30 days, the main reasons being lack of health insurance and inability to pay (15.1%) or lack of transport (13%). The highest percentage is noted in the South-West region, populated mainly with Albanians, 64.8% unemployed. The main predictors of access were employment status (OR = 2.16, CI = 1.97–2.39), gender (OR = 3.22, CI = 2.49–4.16) and ethnicity (OR = 3.86, CI = 2.47–5.22).

Understanding the main SDH that impair access to healthcare is integral to reducing its impact on health and their recognition is imminent for achievement of broader public health goals. The survey has only partially confirmed the main hypothesis that the health system in RM provides equal access to healthcare for all citizens. Identified regional differences associated with both material and non-material factors and educational status, gender and ethnicity as main SDH of access and need further exploration.

Key messages

- Health system in RM is an important social determinant of health
- Employment, gender and ethnicity are the main social determinants for equity in access to health services

Defining the satisfaction from health services among elderly in Sinop, Turkey, 2014

Gokhan Telatar

G Telatar[1], *S Üner*[2], *H Özcebe*[2], *B Biçer*[2], *Ö Sarı*[2]
[1]Provincial Directorate of Public Health, Sinop, Turkey
[2]Public Health Institute, Hacettepe University, Ankara, Turkey
Contact: gokhantelatar@gmail.com

Background

it is important to develop professionally fictionalized and unique health policies for elderly. Knowing the status of satisfaction with the service in health care planning for the elderly population is important. In this study, it's aimed to determine the satisfaction and effecting factors with the governmental health services among elderly in Sinop, Turkey.

Methods

this cross-sectional study was conducted on 2269 elderly which represents 32.506 elderly registered to family medicine system. Satisfaction with health services is determined by a matrix defining "primary care, palliative care, rehabilitation services, preventive care, treatment services and health promotion services" in dimensions of "existence, approachability, economy and acceptability". Factors effecting the satisfaction from health services were identified by binary logistic regression.

Results

Mean age of the participants was 73. Of the participants, 31.4% were illiterate. When being familiar with the health care provides becomes the main priority in choosing the service provider, it results with dissatisfaction (95% CI = 0.42–0.76). Women and those with at least primary school degree were satisfied with the health care (95% CI = 0.42–0.76 and 95% CI = 1.19–2.21 respectively). Satisfaction decreases with increased age (95% CI = 0.95–0.99).

Conclusions

Many different factors effect satisfaction from health services. Deciding the service provider depending on acquaintanceship rather than health needs decreases the satisfaction. In order to increase satisfaction from health services among elderly, policies are needed to disengage acquaintanceship concerns and encourage choosing the service provider towards the real requirements.

Key messages

- There are many factors effecting satisfaction with health services
- The priorities of elderly for deciding the health care provider may lead to dissatisfaction

Telephone interviews to assess non-response bias in a postal user experience survey

Kirsten Danielsen

K Danielsen, HH Iversen, O Holmboe
Norwegian knowledge centre for the Health services, Oslo, Norway
Contact: kid@nokc.no

Objective

The study was conducted to assess whether there are systematic differences in user experiences between the postal respondents and non-respondents in a survey of general practitioner (GP) patients.

Methods

A random sample of (N = 4857) patients connected to 500 Norwegian GPs at 239 practices in 2014 was included in the survey. We received 2377 responses, a response rate of 49%. Of these, 12% answered on behalf of others (either children under the age of 16 or others who needed help).

For the purpose of exploring potential bias in the survey, telephone follow-up interviews were conducted with non-respondents randomly sampled. One question was randomly selected from each of the domains in the main questionnaire. Prior to the main telephone survey, pilot interviews were conducted. Since there were no need to adjust the questionnaire or the methodological approach, the test interviews were included in the main survey. We made up to five attempts to reach each patients. An Independent Samples T-test was used to test differences between the two respondent groups.

Results

A total of 240 patients among the non-respondents were contacted by telephone. Responses to the telephone interviews were obtained from 86 respondents, 74 did not want to participate in a telephone interview, and 80 were ineligible. Statistically significant differences between the two respondent groups were found for three variables; whether you felt that your GP took you seriously ($p < 0.001$), whether you were met with politeness and respect in the reception ($p < 0.05$), and whether the contact with your GP helps you to stay healthy ($p < 0.05$). No significant differences between the groups were found for the three remaining variables; whether it is difficult to get in touch with your GP's office by telephone, whether you think your GP cooperates well with other health services that you need, and whether you, overall, are satisfied with your GP.

(A table which shows the results for each variable will be presented.)

Conclusions

Differences between the two respondent groups were identified for three of six variables, however, we consider the impact of non-response bias in the large scale survey as relatively small. The results are in accordance with previous findings, but further research should explore the potential bias between response modes.

Key message

- Telephone interviews to assess non-response bias in a postal user experience survey

What Serbian gynecologists say to human papillomavirus vaccine: YES or NO?

Željka Nikolić

Ž Nikolić, B Matejić

Institute of Social Medicine, Faculty of Belgrade, University of Belgrade, Belgrade, Serbia
Contact: zeljka.nikolic@mfub.bg.ac.rs

Background

The gynecologist's recommendations of human papillomavirus vaccine (HPV) vaccine might have a significant influence on parents' decision to vaccinate their child. The aim of this study was to estimate the level of knowledge about HPV infection and HPV vaccine among gynecologists, their attitudes regarding the HPV vaccine and their willingness to recommend vaccination to their patients. Finally, we assessed the factors associated with the recommendation of HPV vaccine.

Methods

This research was conducted between March and April 2012 among all gynecologists working at women' health services in all primary health centers in Belgrade - capital of Serbia. The study instrument was an anonymous questionnaire, specially designed for this type of study and previously used in similar research in Serbia.

Results

The response rate was 81.1%. The knowledge of gynecologists was estimated as average. However, they recognized the need for additional education in this field. The most-frequently reported obstacles to HPV vaccination were the financial concern (59.8%) and quite often changing the recommendations for the HPV vaccine usage (58.1%). More than two thirds of the gynecologists were willing to recommend the vaccine (68.4%). The factors associated with the gynecologists' intention to recommend the vaccine included their positive attitudes towards boys' vaccination (OR 8.96 95%CI 2.85–28.16), negative attitudes towards frequent changes the recommendations (OR 0.31 95%CI 0.10–0.93) and beliefs that the vaccine application would decreased the condom usage (OR 0.31 95%CI 0.06–0.68).

Conclusions

The findings provide useful information for the development of effective public health interventions that may lead to increase of immunization coverage and development of national strategies for HPV vaccination in Serbia with a focus on the prevention of HPV infection.

Key messages

- Cooperation between parents and gynecologists is of great importance for future prevention of HPV infection and consequent decline in mortality rate from cervical cancer
- These results should be in focus for decision makers and public health authorities who will acknowledge existing problems and recognize the need to resolve it

2.W.G. Poster walk: Evidence of public health innovation

Passive surveillance of vaccine adverse events: need for standardized severity classification

Lucia Borsari

L Borsari[1], MG Gatti[2], E Bottosso[1], MG Pascucci[3], L Osbello[4], G Fantuzzi[1], D Carati[3], CA Goldoni[2]

[1]Department of Diagnostic, Clinical and Public Health Medicine, University of Modena and Reggio Emilia, Italy
[2]Epidemiology Service, Modena Local Health Public Authority, Italy
[3]Public Health Service, Emilia-Romagna Region, Italy
[4]Drug Policy Service, Emilia-Romagna Region, Italy
Contact: lucia.borsari@unimore.it

Background

Passive surveillance of adverse events following immunization (AEFI) is a spontaneous reporting system, affected by under--reporting limitations. Serious AEFI, unlike the mild ones, are constantly reported and they could represent a quite accurate indicator for temporal trends assessment. Present international guidelines and legislation propose the same classification of AEFI seriousness (CAS) for vaccines and drugs, representing an issue in AEFI epidemiologic analysis. The present study aims at evaluating the agreement between CAS and a clinical severity classification (CSC) used by the vaccinovigilance group of Emilia-Romagna region in Italy.

Methods

The study included all AEFI reports of Emilia Romagna in the period 2006–2013. Each report was classified as serious or not serious using both CAS and CSC criteria. Median rate (per 10.000 doses), standard deviation (SD) and range were calculated. CAS agreement with CSC was measured with Cohen's kappa, sensitivity and specificity. Factors associated to seriousness misclassification were evaluated using chi-square.

Results

AEFI reports were 2196 during the period 2006 – 2013. CAS criteria detected 371 (17%) serious AEFI, while CSC 1114 (51%). Median rate was 48 (SD 13.7; range 34.2–76.2) for all AEFI, 8.1 (SD 2.4; range 4.9–11.2) for serious ones using CAS and 24.3 (SD 3.9, range 20.1–31.6) using CSC criteria. The agreement between CAS and CSC was 58% ($K = 0.17$), sensitivity 25.6% and specificity 92.1%. CAS classified as serious some mild symptoms like local reactions, fever <39.5°C and excluded some clinically significant AEFI. Misclassification involved overall children < three years ($p < 0.05$).

Conclusions

CAS results unfitting in categorizing clinically significant AEFI in vaccination field. A standardized CSC shared at national and international level is needed, to improve the effectiveness of passive surveillance systems in guiding public health interventions and in community and health providers education.

Key messages

- The use of a clinical severity classification for AEFI is a key point to improve the effectiveness of passive surveillance in guiding public health interventions
- Standardization of severity criteria at national and international level is necessary to facilitate comparability of results

Funnel plot and Cumulative Sum to whom the results should be provided

Nasser Al Hawajri

N Al Hawajri, R Dorent, C Jacquelinet, K Laouabdia Sellami
Medical and scientific direction, Agency of biomedicine, Saint Denis,France
Contact: nasser.alhawajri@biomedecine.fr

Introduction

To improve healthcare outcomes, a number of government agencies have developed different graphical methods of rating health care providers on patient risk-adjusted outcomes. To provide accurate information about our heart transplantation centers in France, we compared 2 methods for post-transplantation mortality evaluation.

Methods

We analyzed the data of the national heart transplantation registry for the period 2000 to 2011 (3500 patients from 26 transplantation centers). The studied outcome was post-transplantation one-year mortality rate in adult patients.

- A Funnel plot is a plot of an outcome summary statistic from each transplantation centers against a specified target (national mortality rate) together with upper and lower control limits. The funnel plot was used to analyze distinct five year period cohorts.
- The Cumulative Sum (CUSUM) is a plot over time, comparing the observed with expected outcomes based on either the national or a center-specific model of mortality. The CUSUM was used to analyze the cohort over the whole period.

Both plots can be risk-adjusted for important donor and recipient characteristics.

Results

The national post-transplantation one-year mortality rate over the studied period is 25.8% (24.4–27.3). Our results showed that CUSUM plots are more sensitive than funnel plots and also intuitively reveal trends in mortality excess over time. Some transplantation Centers which exceeded more than 50% of the national mortality rate over time where not detected by funnel plots, while CUSUM was able to detect such excess in mortality.

Discussion

Relying on funnel plots to detect low performance in transplantation centers may lead to under-estimation of an increase in mortality. CUSUM is adapted to continuous performance monitoring where funnel plot can be useful in overall performance reporting. The results of CUSUM are very important for clinicians, and policy makers, whereas the results of funnel plots could be provided to the general public also.

Key messages

- Health monitoring and reporting
- Health care improvement

The mean of satisfaction may not reflect satisfaction

Laurent Gerbaud

C Auclair, B Belgacem, L Gerbaud
[1]Service de santé publique, EA 4681 PEPRADE, CHU Clermont-Ferrand, Université d'Auvergne, Clermont-Ferrand, France
Contact: lgerbaud@chu-clermontferrand.fr

Background

Satisfaction is one of the outcomes of care used in various settings. In France, the assessment of satisfaction is mandatory for patients who had been hospitalized. The mean level of satisfaction will be used in January 2017 in order to modulate hospital financing. But some theoretical researches show that the mean of satisfaction is different form the dissatisfaction or a perfect satisfaction.

Methods

From 2002 to 2013, at least 2200 patients were asked every year about their satisfaction, by mail, towo months after their exit, using a 11 dimensions standardized satisfaction questionnaire (QSH). So we have from 35 to 45 answers for each of the 54 medical or surgical units of our university hospital every year. We ranked all the units for each of the 11 dimensions, according the mean level of satisfaction, the high level of dissatisfaction (rate of answers under 2 on a 5 points Likert's scale) and high level of satisfaction (rate of answers over 4 on a 5 points Likert's scale), and compared the ranking by a Spearman rank correlation coefficient.

Results

In some dimensions, correlations are high (such as comfort of the room – $r = 0{,}616$ to 0,824). But for most of the dimensions, correlations are poor, such as for relations with nurses (0,216 to 0,457) and exit processes (0,318 to 0,457). Using fuzzy logic we proposed an another satisfaction score able to correct the mean by high rates of dissatisfaction and/or perfect satisfaction. This way rank correlations are improved and kept over 0,65.

Conclusions

The mean of satisfaction is not a perfect measure of the level of satisfaction. It is possible to compute, using fuzzy logic a better score able to take into account extremes opinions of the hospitalized patients.

Key messages

- mean satisfaction, dissatisfaction and perfect satisfaction may differ a lot
- the use of fuzzy logic may reduce the heterogeneity in assessing satisfaction

Medical error incident reporting in a Italian Academic Hospital: does it work in a long-term period?

Adriana Moccia

A Moccia[1], R Quattrin[1], F Bellomo[1], C Londero[1], MG Troncon[1], G Menegazzi[2], S Brusaferro[2]
[1]Azienda Ospedaliero Universitaria ''Santa Maria della Misericordia'', Udine, Italy
[2]Department of Medical and Biological Sciences, University of Udine, Italy
Contact: moccia.adriana@aoud.sanita.fvg.it

Background

Recent critiques of incident reporting system (IRS) suggest that its role in managing safety has been over emphasized and call for less stress on counting incidents and more importance on the effective analysis of incidents and organizational learning. Few researches have examined the effectiveness of IR in improving safety. Aim of this study is to evaluate a long-term medication error (ME) IRS in an Italian Academic Hospital (AH).

Methods

From 2010 a hospital wide IRS, voluntary and anonymous, is in operation. Safety managers in the central risk office receive and discuss all incident reports, decide further investigations, take ameliorative action, assess any measures undertaken and provide feedback. This retrospective study analysed all MEs [adverse drug events (ADEs) and near misses] database of 2010–2014 period during which none information technology (IT) system on drug management was introduced in AH.

Results

ADEs were 40,5% (83/205) in 2010 and 24,9% (68/273) in 2014 of ME near misses [$p < 0{,}001$].

Hospital IRS showed 0,197 ADEs per 100 admissions in 2010 and 0,175 per 100 admissions in 2014 [OR = 1,127 (95% CI = 0,808–1,573); p = 0,465]. In 2010 none ADEs resulted in sentinel event, while in 2014 1 ADE determined the patient's re-operation. There is not significant statistical difference in ADEs percentages distribution, between the two years, by prescribing [27,7% (23/83) vs 25% (17/68)], dispensing [16,9% (14/83) vs 19,1% (13/68)] and administering [55,4% (46/83) vs 55,9% (38/68)].

Conclusions

This study shows that IRS underrated ADEs number per 100 admissions [<1 vs 2.43 reported by Classen et al (1997) in a best evidence in this field of research]. Prescribing and dispensing steps remained a problem in the years probably to a lack of resources investment in IT. On the other side, reported ME near misses increased. In conclusion IRS had spread a safety culture among health personnel but it was not effectiveness in monitoring the real dimension of ADEs phenomenon.

Key messages

- There is little evidence regarding how IRS contributes to safety in term of clinical outcomes
- This study analyzes a MEs database to evaluate the real impact of a long-term hospital IRS system

Community-centered research in Bulgaria, a mixed-methods approach to health-related quality of life

Desislava Vankova

D Vankova
Medical University- Varna, Faculty of Public Health, Varna, Bulgaria
Contact: vanko07@gmail.com

Background

Community is the setting where we grow, work, age and is the 'center of gravity' for the presented research. Exploring health-related quality of life (HrQoL) is an approach to detect inequalities. The overall study objective is to measure the HrQoL in a community (Burgas residents), and to assess the impact of socio-economic, demographic and behavioural factors on HrQoL. The relationship between HrQoL and social capital is analysed through a network-based approach. The achieved ambition was to support informed decisions by the community leaders.

Methods

The study employs mixed methods sequential-explanatory design. During the first quantitative phase is used EQ-5D-3L instrument. A community representative survey (n = 1050, >18 years old) was conducted in Burgas in 2011 using face-to-face interviews based on the standardized questionnaire. Respondents were selected through the method of two-stage random selection. During the qualitative phase was conducted a Delphi-study (in 2013).

Results

People without any problem in all five dimensions represent only 26.5% (n = 278) of the respondents, whereas 52.2% (n = 548) reported a moderate problem in at least one dimension; any extreme problem reported 11.6% (n = 122) of the respondents. The mean state of health recorded on the Visual Analogue Scale was 70 (SD ±23). There were differences in self-reported health based on the respondent's age, occupation, education, income, smoking habits, membership in community groups. People who have hobby and practice sports assessed their health higher. The use of a cross-culturally validated instrument enabled international comparisons. The results were communicated during the following Delphi-study with key stakeholders; a consensus has been reached that the combination of routine health measures with HrQoL-data could provide better understandings of the community needs. Similar research in Bulgarian context has not been reported so far which demonstrates its social significance.

Key messages

- The presented research is an applied science and the fulfilled mission has been to analyse the data and thus to provide new insights for evidence-based health policy decisions at a community level
- EQ-5D-3L questionnaire is a practical way of measuring health-related quality of life in a community. It helps to "diagnose" health inequalities and to assess the influence of health determinants

Patient involvement in patient-reported outcome measure development: the developers' perspective

Bianca Wiering

BM Wiering[1], D de Boer[2], D Delnoij[1]
[1]Tranzo (Scientific Centre for Transformation in Care and Welfare), Tilburg University, Tilburg, The Netherlands
[2]NIVEL (Netherlands institute for health services research), Utrecht, The Netherlands
Contact: B.M.Wiering@uvt.nl

Background

Patient-reported outcome measures (PROMs) measure patients' perspectives on health outcomes and are increasingly used in health care. To really capture the patient's perspective, patient involvement in PROM development is essential. As earlier research showed varying degrees of patient involvement in PROM development, this study aimed to investigate why PROM developers do or do not involve patients and what the costs and benefits of patient involvement are.

Methods

PROM developers who, according to an earlier scoping review, involved patients in several phases of PROM development or did not involve patients at all, were contacted for a telephone interview. The interviews were recorded and transcribed. The transcripts were sent to the developers for approval.

Preliminary results

41 PROM developers who involved patients were contacted. Currently 12 interviews have taken place and 6 additional developers have agreed to an interview. PROM developers perceive patient involvement as necessary to create a valid questionnaire. Most developers do not actively consider which methods should be used to involve patients, but rely on personal experiences or guidelines set by PROMIS® or the Food and Drug Administration. Negative aspects of patient involvement were time investment, logistical problems and patients taking over interviews or focus groups. Despite these negative aspects, developers highly recommend patient involvement. To give more insight into the reasons for not involving patients, 16 PROM developers who did not involve patients will be contacted shortly.

Discussion

Although PROM developers agree that patient involvement is necessary, most do not actively consider pros and cons of different methods that can be used to involve patients. Although guidelines for PROM development may be a good start, to optimize patient involvement developers should not simply follow guidelines but should explicitly think about which methods would suit their study.

Key messages

- Even though patient involvement may have some negative consequences, PROM developers highly recommend involving patients in PROM development
- To optimize patient involvement in PROM development, PROM developers should actively consider which methods should be used and further build and improve upon the guidelines for patient involvement

Conceptualising the societal value of health and wellbeing and developing indicators for assessment

Colin Baker

C Baker[1], P Courtney[2]
[1]School of Sport and Exercise, University of Gloucestershire, Gloucester, UK

[2]Countryside and Community Research Institute, University of Gloucestershire, Gloucester, UK
Contact: cmbaker@glos.ac.uk

Background

Contemporary health promotion interventions commonly adopt community-based approaches to address health and social problems. Evaluating their outcomes is challenging because of the complex and reciprocal relationship between individual behaviour and wider environmental factors. It is important for public health organisations to understand the wider societal impacts of their interventions and the journey of change that can unfold for stakeholders as they engage with programmes. A theory of change is first developed for a community health intervention from which a number of indicators to assess health and wellbeing outcomes are developed.

Methods

Participants (n = 34) were recruited from a sample of community stakeholders who had acquired local government funding to deliver health promotion projects. Via qualitative storyboard workshops and individual face-to-face interviews, participants identified the anticipated short, medium and long-term outcomes of their projects. Data were collected via a journey of change template and discussions were recorded and transcribed verbatim. Data were interrogated using a grounded theory methodology from which a theory of change was developed to provide a temporal map of the outcomes and the relationships between them.

Results

The theory of change identified three distinct conceptual pathways describing the nature of trajectories articulated by stakeholders, the conditions surrounding actions within these pathways, and the main outcomes of the programme. These included improved health, wellbeing, community cohesion and agency, for which a range of indicators of change were developed.

Conclusions

The conceptual framework developed via a grounded theory of change methodology provides a powerful means of unpacking the complex phenomena of health promotion interventions. Together with the developed indicators of change this represents an innovative approach for the evaluation of community health initiatives.

Key messages

- The conceptual framework helps to understand the wider societal impacts of health promotion interventions which are often neglected due to methodological constraints
- The indicators of change provide a means of assessing the wider societal value of health and wellbeing in community settings

Experts consensus on actions for enhancing healthcare and access to orphan drugs in Spain

Silvia Paz

I Abaitua[1], M Comellas[2], J Cruz[3], L González[4], A Martín[5], JL Moreno[5], J Pérez[6], J Poveda[7], S Paz[2], J Torrent[8], J Urcelay[5]
[1]Instituto de Salud Carlos III, Spain
[2]Outcomes'10, Castellón, Spain
[3]FEDER, Madrid,S pain
[4]Hospital Universitario Infantil Niño Jesús, Madrid, Spain
[5]Shire, Madrid, Spain
[6]Hospital Universitario Vall d'Hebrón, Barcelona, Spain
[7]Hospital Universitario. La Fe, Valencia, Spain
[8]Committee for Orphan Medicinal Products (COMP), Spain
Contact: emartinez@outcomes10.com

Background

Rare diseases (RD) (< 1 in 2000 individuals in Europe; >5000 disorders) are an important public-health issue. This study aims to reach consensus amongst experts on the most feasible actions to be undertaken to facilitate orphan drugs (OD) availability and patients' access to specialized care in the public health sector in Spain.

Methods

Two-round Delphi enquiry; RD experts identified by the study scientific committee. The questionnaire [32 statements related to OD price and reimbursement (n = 5); access to OD and specialized health care (n = 19); RD registry (n = 7); care model for RD (n = 1)] was based on a literature review and 2 focus groups. Agreement was sought on the desire and prognosis for each statement to take place over the next 5 year. Consensus was reached when 75% participants, or more, choose the totally or partially agreed options (agreement), or the totally or partially disagreed alternatives (disagreement).

Results

82 experts (50.9% response rate) took part [health care managers (n = 13), clinicians (n = 41), hospital pharmacists (n = 16), patients (n = 9) and pharmaceuticals representatives (n = 3)]. Agreement on the desire (D) and prognosis (P) of occurrence was reached in 66.07% (n = 37) statements, including: OD price review [absence of clinical effectiveness (D:85.37%; P:85.90%) or target population increase (D:79.27%; P:91.03%)]; reference teams will define referral protocols, treatment criteria decisions and clinical practice guidelines (D:97.56%; P:89.74%); a unified, usable, etiology based registry for RD will be created to generate clinical and therapeutical evidence (D:97.56%; P:84.62%).

Conclusions

In order to enhance RD patients care most feasible agreed actions relate to OD access, referral teams creation and registries organization. As a public health issue, this consensus may foster similar discussions in other European countries.

Key message

- An expert consensus reveals valuable and feasible actions for facilitating OD availability and more adequate care of RD patients in Spain

The effect of non-participation on the estimation of smoking trends

Hanna Tolonen

H Tolonen[1], K Kopra[2], E Vartiainen[1]
[1]Department of Health, National Institute for Health and Welfare, Helsinki, Finland
[2]Department of Mathematics and Statistics, University of Jyväskylä, Jyväskylä, Finland
Contact: hanna.tolonen@thl.fi

Background

Smoking trends in Finland have been declining among men and increasing among women. These trends are based on data collected through population surveys. At the same time, survey participation rates have declined. It has also been shown that survey non-participation is not random, i.e. survey participants and non-participants differ from each other in their socio-economic status, health behaviours and health outcomes.

Methods

Data from the national FINRISK study was used. The FINRISK surveys have been conducted among the adult population every 5 years since 1972. The survey samples (participants and non-participants) were linked to the administrative registers of hospitalizations and deaths to allow morbidity and mortality follow-up. The effects of non-participation to smoking prevalence and trends were estimated using Bayesian modelling. The occurrence of lung cancer or chronic obstructive pulmonary disease was used as an indicator for smoking and the models were adjusted for age and survey area.

Results

The participation rate in the FINRISK surveys has declined from 86% in 1972 to 71% in 1997. The differences between observed (participants only) and corrected smoking prevalence varied from 0.1 to 6.6 percentage points among men and from 0.2 to 5.2 percentage points among women. In men, the observed average annual decline in smoking was −0.83 while the trend based on corrected prevalence estimates was −0.68. For women, the observed average annual increase in smoking was 0.17 and the trends based on corrected estimates 0.26.

Conclusions

Our results show that survey non-participation may cause visible bias to smoking prevalence and trend estimates. Therefore, it is important to target for as high participation rates as possible. Collection of additional register based data on both survey participants and non-participants may help to build statistical models for non-participation adjustment.

Key message

- Increasing and at the same time selective survey non-participation is shown to generate bias in smoking prevalence and trends

Evaluating Portuguese population health in the last 20 years through a Population Health Index

Angela Freitas

Â Freitas[1], A Vaz[2], T Rodrigues[3], P Santana[4]
[1]Centre of Studies on Geography and Spatial Planning (CEGOT), University of Coimbra, Coimbra, Portugal
[2]Hospital Beatriz Ângelo, Loures, Portugal
[3]Centre for Management Studies of Instituto Superior Técnico, Universidade de Lisboa, Lisbon, Portugal
[4]Department of Geography, Centre of Studies on Geography and Spatial Planning (CEGOT), University of Coimbra, Coimbra, Portugal
Contact: angelafreitas30@gmail.com

Background

Reducing health inequalities is one of the main challenges of European governments, confronting decision-makers at all levels.In the present economic-financial crisis, in which public resources are becoming scarcer, difficult decisions regarding the allocation of public funds arise; particularly, policy-makers have to prioritize which problems and populations they should address. Hence, tools that can evaluate population health in its multiple dimensions are needed, particularly to inform the choice of interventions with potential to reduce health inequalities and improve population health.

Methods

On behalf of the GeoHealthS research project, a holistic Population Health Index (INES) was developed to evaluate Portuguese population's health in a multidimensional and disaggregated way, at a municipality scale in the last 20 years. Its construction is based on a framework that combines the MACBETH multicriteria approach with participatory methods, including a modified Delphi process with a large group of stakeholders and experts, and decision conferencing with a strategic group.

Results

The INES outputs allow to evaluate and monitor population health over time and across multiple dimensions (e.g. socio-economic, physical environment, healthcare services and lifestyles). The preliminary results demonstrate that population health, in overall terms, has been improving in all municipalities since 1991. However, in several dimensions, the population health scores reveal great disparities, pointing out which dimensions in each municipality need priority attention.

Conclusions

This work provides evidence about how INES is a valuable tool for decision-support. Its integration in a WebGIS platform play an important role in: raising awareness of the factors that influence population health in each municipality; illuminating which dimensions need priority intervention; and being a starting point for future research on simulating the impact of policies on population health.

Key messages

- The Population Health Index is a holistic measure that evaluates and monitor population health over time and across multiple dimensions (e.g. socio-economic, physical environment, healthcare services
- The Population Health Index is a valuable tool for decision-support, on raising awareness of the factors that influence population health and illuminating the priority areas for intervention

EQ-5D and Activity Inventory: Measures of Visual Health Outcome

Joana Cima

J Cima[1,2], R Santana[1], R Massof[3], L Moreno[4], A Baptista[4], P Marques[1], A Macedo[4]
[1]Health Policy and Management Dept., National School of Public Health – Univ. Nova Lisboa; Lisboa, Portugal
[2]School of Economics and Management, University of Porto; Porto, Portugal
[3]Johns Hopkins Wilmer Eye Institute, Baltimore, MD, USA
[4]Vision Rehabilitation Lab.; Centre / Department of Physics and Optometry, University of Minho; Braga, Portugal
Contact: joana.cima@gmail.com

The aim of the study is to test if EQ-5D, a more generic instrument, and Activity Inventory, a more specific instrument to the visual condition, produce consistent results when considering the different levels of visual impairment. By assessing how these instruments reflect visual status in a sample of patients with visual impairment, we will help to understand how they can work in cultural context and population in which they were never tested before.

Method is based on Multivariate Analysis of Variance, in which the levels of visual impairment (slightly, moderate, severe/blindness) are defined through the visual acuity values, and the utility values derived from EQ-5D and the Activity Inventory.

Participants were recruited in 3 public hospitals as a part of an ongoing study of prevalence and costs of visual impairment in Portugal. Patients attending outpatient appointments in these hospitals with acuity in the better eye of 0,30logMAR or worse and/or visual field in the better eye <20 degrees were invited to take part in face-to-face interviews. Additional visual measures, as acuity was collected using standardize methods. Visual acuity was assessed using an internally illuminated ETDRS chart at 4 m with room lights extinguished.

The results show that both instruments have a good explanatory power. However when considering different clinical conditions, the AI presents better results. The EQ-5D due its low sensitivity/adaptability does not capture differences in health status in patients with slightly and moderate visual impairment.

Since EQ-5D is the instrument most used in the evaluation of public health programs performance, the results suggest that its use should be more cautious in a situation of different difficulty levels. The results indicate that in these cases the EQ-5D should be used with a complementary instrument more specific to the clinical condition.

Key messages

- The results suggest that with different difficulty levels the EQ-5D should be used with a complementary instrument more specific to the clinical condition to be produced more reliable results
- This study is supported by the Portuguese Foundation for Science and Technology (FCT) -POCTI & FSE GRANT: PTDC/DPT-EPI/0412/2012

Risk of ALS and passive long-term residential exposure to pesticides: a population based study

Federica Violi

F Violi[1,2], T Filippini[1,2], C Malagoli[1], J Mandrioli[3], C Signorelli[4], A Odone[4], M Ferrante[5], M Fiore[5], C Ledda[5], C Mauceri[5], F Patti[5], S Costanzini[6], S Fabbi[6], S Teggi[6], M Vinceti[1]
[1]CREAGEN-Research Center in Environmental, Genetic and Nutritional Epidemiology- University of Modena and Reggio Emilia, Italy
[2]Specialization School in Hygiene and Preventive Medicine- University of Modena and Reggio Emilia, Italy
[3]Dep. of Biomedical, Metabolic and Neural Sciences- University of Modena and Reggio Emilia

[4]Dep. of Biomedical, Biotechnological and Translational Sciences- University of Parma,Italy
[5]Dep. ''G.F.Ingrassia'', Hygiene and Public Health- University of Catania, Italy
[6]LARMA- University of Modena and Reggio Emilia, Italy
Contact: federica.violi@unimore.it

Background

Amyotrophic lateral sclerosis (ALS) is a progressive neurodegenerative disease of the motor neuron. Its etiology is still largely unknown, but environmental factors may have an important role. Among these environmental risk factors, we assessed the possible role of agricultural pesticides.

Methods

We carried out a population case-control study in the Northern Italy provinces of Modena, Reggio Emilia, and Parma and in the province of Catania. For each ALS case diagnosed in that area from 1998 to 2011, four controls matched by sex, age and province of residence were randomly selected from the general population. For each subject we identified and geocoded their historical residences within a Geographical Information System (GIS) database. To evaluate passive exposures to neurotoxic pesticides, we added to the GIS a land use regression model related to 1976, focusing on an area of 100 meters around the subjects residences. In that area, we computed the land percentage dedicated to different cultivations (vineyards, orchards, extensive arable farming and crops) for which potentially neurotoxic pesticides had been used, to assess passive exposure to these chemicals.

Results

We identified 703 ALS cases and 2737 matched controls, 1251 of which subjects (254 cases) did not change residence over the entire study period. We computed the odds ratio of the disease associated with different land use through a conditional logistic regression model, dichotomizing subjects' exposure according to any specific pesticide use in the surrounding area. ORs were 0.74 (95% confidence interval (CI) 0.50–1.11) for vineyards, 0.78 (0.43–1.41) for orchards and 1.00 (0.78–1.28) for extensive arable farming and crops.

Conclusions

These results do not support an association between passive exposure to neurotoxic pesticides and ALS risk.

Key messages

- Despite the suggested role of pesticides as potential risk factors for ALS, our study did not show an association between passive long-term residential exposure to these chemicals and the risk of ALS
- GIS is a new technology designed to collect, integrate, analyze and display multiple data in a spatially referenced environment, allowing new perspectives in environmental exposure assessment

Regional and city-level differences in health and wellbeing in Finland 2013–2015

Jukka Murto

R Kaikkonen[1], J Murto[1], O Pentala[1], T Koskela[1], T Härkänen[2], E Virtala[1], E Vartiainen[2], S Koskinen[2]
[1]Department of Information Services, National Institute for Health and Welfare, THL, Helsinki, Finland
[2]Department of Health, National Institute for Health and Welfare, THL, Helsinki, Finland,
Contact: jukka.murto@thl.fi

Background

One of the basic tasks in municipalities in Finland is the promotion of health and well-being of residents but the information needed is lacking. However in Finland, The Regional Health and Well-being Study ATH provides national, municipalities and municipal federations monitoring system of health and well-being together with the factors affecting them. In the study, follow-up data on essential phenomena that are not found in registers are collected according to population groups.

Methods

The Regional Health and Well-being Survey were conducted by questionnaire survey in 2013 with sample of 57 000 Finns (response-rate 54 %). The ATH-study covers up to 150 000 sample of Finns during the period 2013–2015. Furthermore, the research is extended to cover ethnic groups (the UTH-study). Information on residents' well-being, health and functional capacity will be reported immediately to experts with graphs, inter-actual (eg. Instant Atlas) and brief reports.

Results

Regional, area- and municipal-level differences in Finland were found in various indicators concerning ex. the limited work ability (WAI, single-item), Espoo 17% vs. Turku 27%. Moreover significant differences were found in limited work ability, active participation in society, trust ex. municipal decisions, unmet needs ex. cultural services, various health indicators ex. self-rated health, functional capacity, health behavior and risk factors ex. smoking, obesity, and use of service. Moreover the need for local level information of health inequalities were studied and reported in inter-actual web-site. Local authorities have adopted their results for decision making.

Conclusions

Monitoring system of The ATH-study helps municipalities to cope with the statutory obligation to monitor residents' health and factors that affect it, by population groups and the ATH-study is nationally and internationally valuable and comparable data.

Key messages

- Planning and ensuring functional services in a society requires that information is available on the population and its subgroups, so as to positively influence decision-making and services
- Local enquiries, surveys and health studies are needed since only a small part of the necessary reliable information exists in registers

Quality Assessment of Studies Published in Open Acces and Subscription Journals

Dario Arzani

D Arzani[1], R Pastorino[1], S Milovanovic[1], J Stojanovic[1], L Efremov[1], R Amore[1], S Boccia[1]
Section of Hygiene, Institute of Public Health, Università Cattolica del Sacro Cuore, Rome, Italy
Contact: dario.arzani@rm.unicatt.it

Background

Along with the proliferation of Open Access (OA) publishing, our interest focused on the evaluation of the methodological quality and the quality of reporting of studies published in OA and non OA journals. To this end we included primary epidemiological studies and systematic reviews (SR), and meta-analyses (MA) published in the field of oncology in 2013

Methods

Methodological quality of studies was evaluated by assessing the compliance of case control (CC) and cohort (CO) studies to Newcastle and Ottawa Scale (NOS), and the compliance of SR and MA to Assessment of Multiple Systemic Reviews (AMSTAR) scale. The quality of reporting was assessed considering the adherence of CC and CO studies to STrengthening the Reporting of OBservational studies in Epidemiology (STROBE) checklist, and the adherence of SR and MA to Preferred Reporting Items for Systematic reviews and Meta-Analysis (PRISMA) checklist. For the appraisal, we picked up the first studies published in 2013 with CC or CO study design from OA journals (n = 12), and in the same time period from non-OA journals, matched by impact factor value (n = 12); the first SR and MA published in 2013 from OA journals (n = 15), and in the same time period from non-OA journals, matched by impact factor value (n = 15)

Results

Among CC and CO studies published in OA and non-OA journals, we did not observe significant differences in the median value of NOS score (p = 0.8) and in the adherence to STROBE checklist (p = 1). The compliance with AMSTAR and adherence to PRISMA checklist were comparable between SR and MA published in OA and non-OA journals (p = 0.6), (p = 0.8), respectively.

Conclusion

The studies published in OA journals in the field of oncology approach the same methodological quality and quality of reporting as studies published in non-OA journals.

Key message

- The studies published in OA journals and in non-OA journals in the field of oncology in 2013 approach the same methodological quality and quality of reporting

The role of Energy Community Treaty in protecting public health

Vlatka Matkovic Puljic

Anne Stauffer
Health & Environment Alliance (HEAL), Brussels, Belgium
Contact: vlatka@env-health.org

Air pollution is classified by the global burden of disease as a top ten risk factors for health globally and is associated with a broad spectrum of health effects. Several countries in South East Europe (SEE) suffer from particularly bad air quality. Coal power generation is worsening the air pollution situation. SEE countries are still largely dependent on power generation from coal plants.

With the lack of national legislation or capacity to implement policies in SEE that would also protect public health, international Treaties are an important instrument to curb air pollution. The Energy Community Treaty that extends the EU's internal energy market to SEE countries is both an opportunity and a threat. It could become a promoter of healthy energy forms, or lock in SEE in coal power which fuels climate change and air pollution. The Treaty is a key policy for public health experts to become engaged in.

The engagement of health and medical actors is crucial to strengthen the Energy Community Treaty's health and environment rules. This means particularly including crucial EU laws for cleaner air that would lead to higher air quality standards in SEE countries and help to prevent ill-health and premature death in the region.

The ultimate electricity consumers, citizens, and protection of their health should be a central part of broadening of the scope of rules in energy policies. Responsibility of the health professionals to protect public health lies also in following a health in all policies approach, so to engage in policies that so far were not regarded as a part of the health domain.

Key messages

- International policies in the energy and environment realm have mechanisms to help to protect public health in those countries that otherwise would not drive the positive changes themselves
- Responsibility of the health professionals to protect public health lies also in following a health in all policies approach, also to engage in energy and environment policies

2.W.H. Poster walk: Austerity and inequalities

Patterns and trends in socioeconomic mortality inequalities in Lithuania: the record linkage survey

Ramune Kalediene

R Kalediene, R Prochorskas, S Sauliune
Faculty of Public Health, Lithuanian University of Health Sciences, Kaunas, Lithuania
Contact: ramunekalediene@gmail.com

Regular monitoring of socioeconomic inequalities in health is essential for the assessment of the effectiveness of health policies. Identification and focus on population groups with higher health risks would reduce health inequalities and improve health situation in the entire population. The aim of this study is to present socioeconomic inequalities in mortality and their trends in Lithuania using routinely collected data and the record linkage for the years 2001–2009, as related to educational level, occupation, economic activity, marital status and household size.

Methods

Record linkage was performed using personal identification number between three data sources: 2001 population census, national mortality register for years 2001–2009 and population register, including individuals of age 30 and older. The linked data set consisted of 2 061 481 records, including 338 652 death cases. Age-standardized mortality rates were calculated for socioeconomic groups and compared in terms of rate differences and rate ratios.

Results

Significant mortality inequalities were found for all socioeconomic variables. Both among males and females the highest relative risks were observed for the occupation and activity status. The largest relative inequalities were observed in mid-ages and declined with ageing. Risk difference increased with the increase in total mortality during 2005–2007, while the decline in inequalities was observed in later years.

Conclusions

Lower education, manual occupations, unemployed, economically inactive and unmarried groups of population had the highest mortality rates and contributed most to the mortality increase in Lithuania during 2005–2007. Recent decline in socioeconomic inequalities points at the positive developments in the society. If this trend continues, a more sustainable improvement of health of the Lithuanian population can be expected.

Key messages

- Inequalities in mortality were increasing during 2005–2007 and declining in later years
- The highest mortality differentials were found for occupation and activity status, particularly in mid-aged population.

The impact of housing arrears on health during the recession in Europe

Amy Clair

A Clair, A Reeves, R Loopstra, M McKee, D Dorling, D Stuckler
Department of Sociology, University of Oxford, UK
Contact: amy.clair@sociology.ox.ac.uk

Background

Many EU nations experienced a significant housing crisis during the Great Recession of 2008–2010. We evaluated the consequences of housing payment problems for people's self-reported overall health, and whether this impact was equitably spread across housing tenures.

Methods

Longitudinal data from the EU Statistics on Income and Living Conditions survey covering 27 countries from 2008–2010 was employed following a baseline sample of persons who did not have housing debt and who were employed (45,457 persons, 136,371 person-years). Multilevel and linear regression models were used to evaluate the impact of transition into housing arrears on self-reported health, correcting for chronic illness, health limitations, and other potential socio-demographic confounders.

Results

Persons who transitioned into housing arrears experienced a significant deterioration in self-reported health by −0.07 units (95% CI −0.05 to −0.09), even after correcting for chronic illness, disposable income and employment status. This association was independent and similar in magnitude to that for unemployment (−0.09, 95% CI: −0.07 to −0.11). The impact of housing arrears was significantly worse for renters, demonstrating a mean 0.11 unit additional drop in health for persons living in rented accommodation compared to owners, highlighting the impact of housing on health inequity.

Discussion

Persons who suffer housing arrears experience increased risk of worsening self-reported health, especially among those who rent. Further research is needed to understand the role of alternative housing support systems and strategies for preventing the health consequences of housing insecurity.

Key messages

- Falling into housing arrears has a significant impact on health
- The impact of housing arrears on health varies with tenure

Educational inequalities in blood pressure in Chilean adults in 2003 and 2010

Andrea Guerrero-Ahumada

A Guerrero-Ahumada, H Pikhart, A Peasey
Department of Epidemiology & Public Health, University College London, London, UK
Contact: a.guerrero-ahumada@ucl.ac.uk

Hypertension is one of the main health problems in Chile and could be contributing importantly to health inequalities. Socioeconomic inequalities in blood pressure have been reported in different countries; however the results are not consistent. This study explores the presence of socioeconomic inequalities in blood pressure in Chile and its tendency over time. This study analyses socioeconomic inequalities in blood pressure in Chilean adults (20+years) using data from two nationally representative surveys conducted in 2003 ($n = 3042$) and 2010 ($n = 4055$). The association between systolic blood pressure (SBP), diastolic blood pressure (DBP) and hypertension and education was assessed estimating Relative (RII) and Slope indices (SII) of inequalities for 2003 and 2010.

Results

Relative inequalities across educational levels were found in women but not in men in both surveys. RII in women were 1.09 for SBP ($p < 0.01$); 1.05 for DBP ($p < 0.05$) and 1.80 for hypertension ($p < 0.01$) in 2003. In 2010 RII was significant only for SBP (index 1.05, $p < 0.05$). Absolute educational inequalities were found in women in 2003 for all the three outcomes (SII 11.30 for SBP $p < 0.01$; 4.27 for DBP $p < 0.05$ and 0.14 for hypertension $p < 0.05$) which disappeared in 2010. Stratification by age group showed significant RII and SII for all three outcomes in 40–59 year group in 2003 (RII 1.11 for SBP; 1.07 for DBP and 1.58 hypertension, and SII 13.9 for SBP; 5.66 for DBP and 0.21 for hypertension) ($p < 0.01$). In 2010 indices were significant only for SBP in 40–59 group. Interactions between survey year and education showed a decrease of inequalities in women.

Conclusions

Although educational inequalities in blood pressure decreased over time, significant inequalities in SBP observed in women and in people aged 40–59 in 2003, were still present in 2010. According to these results, monitoring inequalities in blood pressure should include different outcomes and subpopulations such as gender and age groups.

Key message

- There is an evidence of relative and absolute educational inequalities in SBP in Chile and it is particularly visible in women and those aged 40–59 both in 2003 and 2010

Austerity and Abortion in the EU

Joana Lima

J Lima, F Billari, A Reeves, M McKee, D Stuckler
University of Oxford, Department of Sociology, Oxford, UK
Contact: joana.lima@wolfson.ox.ac.uk

Background

Economic hardship triggered by large recessions can lead families to choose to terminate unplanned pregnancies. Although there have been anecdotal media reports that austerity and recession have triggered a rise in abortions, especially in hard-hit countries like Portugal and Spain, to our knowledge, there has yet to be a rigorous analysis of available abortion data across Europe

Methods

To assess whether abortions have risen during the recession, we collected crude abortion data from 2000–2012 from Eurostat. Countries with both legal abortions and complete data included Bulgaria, Croatia, Czech Republic, Finland, Germany, Hungary, Latvia, Lithuania, Romania, Slovakia, Slovenia, Spain and the United Kingdom. We calculated the trend in abortion rates in these countries followed by a conservative estimate of the excess abortions we registered during the Great Recession based on what the figures would have been if the declining trend had been sustained.

Results

Declining trends in abortion rates between 2000 and 2009 have been reversing. Excess abortions between 2010 and 2012 totalled 10.6 abortions per 1000 pregnancies ending in abortion or birth or 6701 additional abortions (95% CI: 1190 and 9240). The effects are stronger in younger ages.

Conclusions

Our preliminary analysis indicates the need for further research into the pathways leading families and individuals to resort to abortion in the face of economic shocks.

One plausible explanation is a rise in unplanned pregnancies associated with increased drinking and family breakdown documented in recessions. These are more likely to end in abortion than planned pregnancies. Another plausible explanation is that some families who, in financially stable periods, might decide against an abortion in the case of an unplanned pregnancy, might decide to terminate it when facing economic insecurity. This could also, albeit likely to a smaller extent, happen with planned pregnancies if there was an unanticipated economic shock, such as loss of a job in a head of household. Further research must elaborate on these pathways.

Main Messages

Financial strain and precariousness may be leading younger generations in the EU to use abortion as a step in postponing fertility.

Key messages

- The great recession is associated with a reversal of declining trends in abortions
- These effects are stronger in younger age groups

Measuring the impact of social deprivation on pregnancy: results from the CAFE study

Laurent Gerbaud

A Lelong[1], H Laurichesse[2], Perthus[3], F Vendittelli[2], L Gerbaud[1]
[1]Service de santé publique, EA 4681 PEPRADE, CHU Clermont-Ferrand, Université d'Auvergne, Clermont-Ferrand, France
[2]pôle GORH, EA 4681 PEPRADE, CHU Clermont-Ferrand, Université d'Auvergne, Clermont-Ferrand, France
[3]CEMC Auvergne, EA 4681 PEPRADE Université d'Auvergne, Clermont-Ferrand, France
Contact: lgerbaud@chu-clermontferrand.fr

Background

Social deprivation is known to have negative consequences on pregnancy. But it is difficult to assess during pregnancy in France, all the pregnant women having access to equal social supports supposed to equalize economic and social conditions. During a cohort study assessing the consequences of smoking, alcohol and cannabis habits on pregnancy, we have checked the use of a social deprivation score (EPICES) used in various medical settings (diabetes, metabolic syndrome,...), but not in pregnancy. The EPICES is based on 11 questions easily and quickly answered and evaluating economic, social and family aspects of deprivation. It varies from 0 (no deprivation) to 100 (highest level of deprivation)

Methods

From December 2008 to January 2011, a random cohort of 1646 pregnant women spread in 21 maternities were recruited. The results of pregnancies were divided in four classes: normal, fetal death, congenital malformation and other pathology. Univariate and multivariate analyses (by politomic logistic regressions) were performed to measure risk factors of each category of pregnancy results.

Results

Social deprivation measured by EPICES is an independent factor of bad pregnancy outcomes, mainly for congenital malformation (OR = 1,885- p = 0,02) while there is no difference in terms of medical management of pregnany. Other independent factors are smoking (active and passive), mother's disease, low level of dairy intakes and very high coffee consumption.

Conclusions

Social deprivation is an independent risk factor for bad outcome of pregnancy. It can be assessed easily thanks to EPICES, an 11 items questionnaire. EPICES will be implemented in four maternities so that to be filled-in in the beginning of pregnancy and to see if it helps to improve pregnancy management for the poorest women.

Key messages

- assessing social deprivation in the beginning of pregnancy worths it
- assessment of social deprivation during pregnancy can be easily made using an 11 questions score

Challenges in tracking health inequalities from the perspective of stakeholders in national level

Vaida Aguonyte

A Jociute[1], V Aguonyte[1], VR alinteliene[1], G Petronyte[1], J Vladickiene[2], M Stankunas[2], R Jankauskas[1], R Kalediene[2]
[1]Institute of Hygiene, Vilnius, Lithuania
[2]Lithuanian University of Health Sciences, Kaunas, Lithuania
Contact: rolanda.valinteliene@hi.lt

Background

Tracking health inequalities is the challenge, as inequality is determined by factors pertaining not only to health sector; a number of factors are outside this sector. The aim of this research is to assess the challenges faced by different sectors.

Methods

Qualitative research using focus group method was carried out in two discussion groups of stakeholders from national-level in Lithuania and comprised respectively 13 persons from health sector and 11 from other sectors mostly contributing to health (education, social, economic, environment, transport) in 2015. Research addressed challenges to identify and reduce health inequalities focusing on obstacles and enabling factors. Data analysis was performed applying content analysis.

Results

Date analysis revealed common obstacles identifying health inequalities: lack of credibility of statistical data, lack of uniform attitude towards health inequalities, insufficient detailed analyse, leadership demand. The main enabling factors are: necessity to agree on a simple and uniformly interpretable term, applying modern technologies and making a full-scale date evaluation.

Absence of sustainability and explicit priorities, lack of analytical skills of professionals, also lack of inter-institutional collaboration stressed by health sector are the main obstacles in reducing health inequalities. The main defined enabling factors are: sufficient funding increased public awareness, motivation, and encouragement professionals to improve skills, also settlement of priorities stressed by other sectors.

Conclusions

The challenges in identification health inequalities are to be settled at the state level, whereas reduction is to be done at the state and individual level.

In order to conduct indication and reduction of health inequalities, it is important to agree upon the simplest term across sectors, maintain cross-sectorial collaboration, ensure sustainability, and improve skills of professionals.

Key messages

- Both health and non-health sectors have benevolent attitude towards indication and reduction of health inequalities within their capacities
- Lack of integrated approach may become a serious obstacle to establishment of effective measures for reducing health inequalities

Changes in self-rated health before and during the economic crisis in Europe

Dawit Abebe

D Abebe
Norwegian Social Research (NOVA), Oslo and Akershus University College of Applied Sciences, Oslo, Norway
Contact: dawit.abebe@nova.hioa.no

Background

Findings about the current impact of economic crisis on health have been inconsistent, reporting either negative or positive effects of economic downturns on health outcomes. Little is known how individuals' trend on health outcomes changes before and during the crisis. Thus, this study aimed to explore individual changes in self-rated health (SRH) before and during the crisis among 23 European countries.

Methods

The balanced longitudinal panel data from the European Union Statistics on Income and Living Conditions were used – including 65,618 respondents from 2005 to 2007 as pre-crisis cohort and 43,188 respondents from 2008 to 2011 as during crisis cohort. Data analyses were performed using the multi-group unconditional linear growth curve models. A p-value less than 0.05 was considered statistically significant.

Results

Individuals in most European countries had a stable (N = 15; 65%) or increasing trend (N = 5; 22%) in the mean SRH during the pre-crisis period, except those in Belgium, Spain and Hungary showing a significantly declining trend in the mean SRH over time. During the crisis period, although individuals in Austria; Denmark; Estonia; France; Lithonia; Luxemburg; Latvia; Netherland; Norway; Portugal; Slovakia and UK had stable or increasing trends in SRH during the pre-crisis period, they turned to the declining trajectory of SRH during the crisis. Still individuals in nine countries (39%) showed a stable trend in the mean SRH during the crisis period. Exceptionally, individuals in Spain showed an increasing trend in the mean SRH during the crisis period.

Conclusions

The study findings imply that European countries experienced declining as well as stable trends in SRH during the economic downturn regardless of welfare state regimes. Future research should explore mechanisms explaining vulnerability for adverse health outcomes before as well as during the economic crisis. Such knowledge permit planning of evidence-based public health responses.

Key messages

- European countries have experienced declining as well as stable trends in self-rated health during the current economic crisis
- The changes in self-rated health during the crisis are not in line with the welfare state regimes

Regional inequalities of avoidable hospitalization in Lithuania, 2005–2011

Skirmante Jureviciute

S Jureviciute, R Kalediene
Department of Health Management, Lithuanian University of Health Sciences, Kaunas, Lithuania
Contact: skirmante.jureviciute@lsmuni.lt

Background

Avoidable hospitalization (AH) represents prevalence of hospital admissions which could be prevented if accessibility of outpatient care is ensured. In Lithuania, it is particularly relevant in context of healthcare restructuring process from inpatient care-oriented system towards primary and ambulatory care development. This study aims to assess regional inequalities of avoidable hospitalization in 2005–2011.

Methods

National hospital discharge data with ambulatory care-sensitive condition (ACSC) as principal diagnosis was used. Age-adjusted avoidable hospitalization rates (per 100 000 pop.) were calculated. Statistically significant difference of rates was evaluated with the intersection of 95% confidence intervals.

Results

Avoidable hospitalization decreased from 1156.4 in 2005 to 746.84 in 2011 ($p < 0.05$). Less than 1/3 of AH is caused by acute ACSC and the rest by chronic ACSC. A proportion of acute ACSC hospitalization increased from 22% to 30% in 2005–2011, and decreased from 78% to 70% in chronic ACSC hospitalization respectively. In 2011, AH was higher in rural areas (779.63) compare to urban areas (722.00), $p < 0.05$, whereas there was no statistically significant difference between these rates in 2005. Smaller and more rural administrative regions had higher AH compare to Lithuanian average. Ratios of AH decline between 2005 and 2011 ranged from 1.01 to 1.95 in different regions, with most significant reduction in 2011 compare to previous year. In a few regions the AH decline was not significant, remaining 1.2 and 1.64 times higher than national average.

Conclusions

In Lithuania, hospital admission of ACSCs was reduced, which supports national plan to expand outpatient care and reduce inpatient services. However, inequalities of avoidable hospitalization exist between administrative regions, as well as rural and urban areas. These regional differences might indicate inadequate resources of ambulatory care and signal some healthcare management issues.

Key messages

- Avoidable hospitalization was useful in evaluating performance and weak points of outpatient healthcare in Lithuania
- In context of healthcare restructuring, existent regional inequlities might indicate inadequate distribution of outpatient care resources

Inequalities in smoking amongst adult males over time in the United Kingdom

David Pevalin

D Pevalin[1], C Rumble[2]
[1]University of Essex, Colchester, UK
[2]London School of Hygiene and Tropical Medicine, London, UK
Contact: pevalin@essex.ac.uk

Background

Smoking is the most important cause of premature death and of health inequalities in the UK. Over the last two decades there has been a UK government policy focus on health promotion and reducing inequalities. Although many studies have considered the prevalence of smoking, not all disaggregate by a measure of socio-economic position and fewer still consider the changing social distribution of this significant health risk factor.

Methods

This analysis uses data from the Health Survey for England (1993–2011), the Scottish Health Survey (1998–2012), the Welsh Health Survey (2003–2012), the Northern Ireland Health Survey (2010), the Northern Ireland Continuous Household Survey (1991–2010), the British Household Panel Survey (1991–2008), and the General Household/Lifestyle Survey (2001–2011) to examine social inequalities in cigarette smoking over time. We use the 5-class version of the National Statistics Socio-economic Classification and calculate age adjusted relative indices of inequality (RIIs) for current smoking for each year and nation and examine trends over time using line smoothing and fit techniques with regression.

Results

All four nations show a significant decrease in overall smoking prevalence over time but in the context of widening inequalities. Our results indicate that there is significant class inequality in smoking in all 4 nations of the UK at all time points with the trends over time showing a mixed picture but with most suggesting widening inequalities. This increase is most marked for Scotland and Wales whilst for England there is a period of little change in the RII followed by an increase from 2001 onwards.

Conclusions

Smoking prevalence has decreased significantly over the last two decades in the UK. However, despite policy initiatives to reduce socio-economic inequalities, nationally representative data show that inequalities have widened in each of England, Northern Ireland, Scotland and Wales.

Key messages

- Smoking prevalence is falling in all four nations of the UK while inequality is increasing
- Significant increases in inequality are seen in England and Wales but there are variations across nations and across data sources

Quantitative evaluation of Partners in Inner-city Integrated Prenatal Care in Winnipeg, Canada

Lynda Tjaden

L Tjaden, M Heaman, Z Marzan Chang, L Elliott, on behalf of the PIIPC research team
Winnipeg Regional Health Authority, University of Manitoba, Canada
Contact: ltjaden@wrha.mb.ca

Background

Our previous research demonstrated high rates of inadequate prenatal care (PNC) among women living in the inner-city in Winnipeg and identified barriers and facilitators related to their use of PNC. Building on these findings, service providers, policy makers, and researchers collaborated to develop the Partners in Inner-city Integrated Prenatal Care (PIIPC) Project with the goal of reducing inequities in use of PNC. The objective of this quantitative component of the larger mixed-methods study was to describe facilitators of PNC and compare use of PNC to a comparison group.

Methods

A descriptive comparative design was used. Questionnaires were administered by interview to 89 women participating in PIIPC from 2012 to 2015. Data were analyzed using SPSS. The retrospective comparison group consisted of 202 women with inadequate PNC living in the same inner-city neighborhoods who received usual care prior to implementation of PIIPC.

Results

The majority of women in both the PIIPC and comparison groups were single, low income, Indigenous, multigravid, with less than high school education and high rates of substance abuse. 61% of PIIPC clients reported initiating PNC at <13 weeks and 59% received 10 or more PNC visits, compared to 30% and 1.2% of comparison group respectively. Preterm birth rate was lower in the PIIPC group (10.4%) than comparison group (14.4%). PIIPC clients rated the following facilitators as helping them "a lot": help finding a care provider (48%) or setting up appointments (41.6%), bus tickets/taxi slips (77.5%), convenient clinic hours (49.5%), staff easy to understand (77.5%), and incentives (36%).

Conclusions

The PIIPC project resulted in earlier initiation of PNC and more PNC visits for women at social and economic disadvantage, and may also improve pregnancy outcomes. This project exemplifies how building successful partnerships can contribute to health system improvements.

Key messages

- The Partners in Inner-city Integrated Prenatal Care project applied an integrated knowledge translation approach to reduce inequities in use of prenatal care by inner-city women
- The quantitative evaluation results demonstrate an improvement in use of prenatal care by inner-city women, following implementation of initiatives to reduce barriers and enhance facilitators to care

Passi surveillance and overweight prevalence trend for age and socioeconomic level in Lazio region

Valentina Pettinicchio

V Pettinicchio[1], *MO Trinito*[2], *A Lancia*[2], *S Iacovacci*[3], *V Ruscio*[4], *M Coia*[4], *O Micali*[5], *S Corradi*[6], *F Verginelli*[1], *M Braggion*[6]
[1]Specialization School for Hygiene and Preventive Medicine - University of Roma ''Tor Vergata'', Italy
[2]Department of prevention- Asl Roma C, Italy
[3]Department of prevention- Asl Latina, Italy
[4]Department of prevention- Asl Roma G, Italy
[5]Department of prevention- Asl Viterbo, Italy
[6]Department of Economy- University Ca' Foscari of Venezia, Italy
Contact: flavia.verginelli@libero.it

Background

World Health Organization estimates that overweight people have an increased risk of diabetes, cardiovascular disease and cancer.

The Italian Behavioral Risk Factor Surveillance System (PASSI) collects representative data on health behaviors, through telephonic administration of standardized questionnaire.

In this study, we evaluated the prevalence trend of overweight in women from different socioeconomic levels and age groups.

Materials and methods

We analyzed weighted data of 9665 telephone interviews administered from 2008 to 2013 to 18–69 year-old women.

We matched each interview to one of three age classes and to one of three socio-economic levels.

The evolution of the variables over time was assessed through a time series analysis. Dedicated methodologies for trend and seasonality testing were also implemented.

The trend analysis of the variables for age was performed for three classes; for socioeconomic variables, we only considered the two extremes of distribution.

Results

The analysis revealed a slight decreasing trend of overweight women prevalence (from 33% to 31%).

From 2008 to 2013, overweight women prevalence decreases in low socioeconomic level group (from 52.2% a 43.6%, $p = 0.032$).

Stratifying the sample for age, the prevalence of under 35 years overweight women increases in the period ($p = 0.004$); otherwise, in women from 35 to 49 years old and in those from 50 to 69 years old the prevalence decreases ($p = 0.009$ and $p = 0.001$, respectively)

Conclusion

Passi surveillance shows a significant decrease of overweight in women of disadvantaged socio-economic level; however, the differential between the highest socioeconomic level and the lowest one is more than 20 percentage points. The overcoming of this gap is far away.

Although the prevalence of adult women of Lazio overweight is unchanged over six years, Passi surveillance recorded an opposite trend among the older women: this may reflect their increased awareness and contact with general practitioner.

Key messages

- The Passi surveillance system allows the realization of trend analysis by collecting enough observations in short time period
- The gap between socioeconomic groups is far away from being overcome regarding important public health themes, such as overweight

Socioeconomic inequity in Lazio: trend analysis of FOBT execution using Passi surveillance data

Massimo Oddone

MO Trinito[1], *A Lancia*[1], *S Iacovacci*[2], *V Pettinicchio*[3], *R Trivellini*[4], *D Follacchio*[4], *R Boggi*[5], *G Fovi De Ruggiero*[6], *F Lucaroni*[3], *M Braggion*[7]
[1]Department of prevention- Asl Roma C, Italy,
[2]Department of prevention- Asl Latina, Italy,
[3]Specialization Schools for Hygiene and Preventive Medicine - University of Roma ''Tor Vergata'', Italy,
[4]Department of prevention- Asl Roma D, Italy,
[5]Department of prevention- Asl Roma A, Italy,
[6]Department of prevention- Asl Rieti, Italy
[7]Department of Economy- University Ca' Foscari di Venezia, Italy
Contact: f.lucaroni@gmail.com

Background

The Italian Behavioral Risk Factor Surveillance System (PASSI) collects useful and representative data on health behaviors. In Italy, evidence demonstrate that well organized screening program reduce social inequality in access to early detection tests. The aim of this study is to evaluate the prevalence trend of adherence to Fecal Occult Blood Test (FOBT) as colorectal cancer screening in the different socioeconomic population levels to focus on the inequalities, in a context where organized programs of colorectal cancer screening are still unconsolidated.

Materials and methods

We analyzed weighted data of 4759 telephone interviews administered to 50–69 year-old people from 2008 to 2013. We will focus on the results related to the prevalence of colorectal screening in the two years preceding the interview. Each interview was matched to one of three socio-economic levels. The evolution of the variables over time was assessed through a time series analysis. Dedicated methodologies for trend and seasonality testing were also implemented. The trend analysis of the variables was performed only for the two extremes of socio-economic distribution.

Results

The analysis shows an increasing prevalence of people who performed FOBT as recommended (from 14.6% to 18.3%, $p = 0.082$). The prevalence increases significantly from 2008 to 2013 both in men and women in the group with higher socioeconomic level (in men from 21.3% to 34.5%, $p < 0.005$; in women from 13.7% to 24.1%, $p < 0.005$).

The prevalence in low socioeconomic status group falls among men and remains stable among women, without statistical evidence in both cases ($p > 0.05$).

Conclusion

The prevalence of FOBT adherence has unequally changed among the population of the Lazio region. The uneven startup and incomplete consolidation mode of organized screening programs for colorectal cancer, between 2010 and 2013, could maybe have increased awareness on early detection of colorectal cancer in those who were already able to grasp the health advantage promoted.

Key messages

- This paper analyzes the inequalities triggered and fueled by the uneven organization of screening programs for cancer prevention
- This emphasizes that the commitment that public health has to offer is vital to guarantee to the whole community the access to the initiatives of health promotion

Equity in health: how do the actors of a regional French public health agency deal with this issue?

Marion Porcherie

M Porcherie, B Le Bihan, J Pommier
[1]EHESP-French School of Public Health, Rennes, France
[2]CRAPE UMR/CNRS 6051, Université Rennes 1, Rennes, France
Contact: marion.porcherie@ehesp.fr

Background

'Health2020' highlights the role of institutions for tackling the social inequalities in health. In France, the Regional Health Agencies manage the health and social care sector and the prevention and health promotion programs and policies. Since 2009, they are assigned to tackle the social inequalities in health. This communication explores how actors from these Agencies and local consultative assemblies see the role and action of their institution on the social inequalities in health. It presents the first results of an exploratory study conducted in an Agency (area of 3 300 000 inhabitants).

Method

A qualitative study, using a documentation content analyses and semi-directive interviews with 35 actors selected on the basis of a convenience sample has been conducted in 2014–15. They were chosen to reflect on the organization of the institution (health care, social care, public health, general and strategic affairs, assembly), at the regional and local levels. Content analyses were conducted with the NVivo10 software.

Results

As shown by the documents content analysis, actors differently positioned in the Agency and their assemblies take the social inequalities in health into account when they edict a policy document. However, interviews analyses show that actors have various visions of reality and definition of social inequalities in health. The main levers of action are considered to be the health professionals and the actors of the health system. Thus, it does also involve material and non-material incentives aiming at reorienting the health care system by using prevention and health promotion as indirect levers of action.

Conclusion

Although the social inequalities in health seem to concern the actors, their conceptions of actions tackling the social inequalities in health are much contrasted. But, the levers described during this study show a consistent and shared political vision which puts forward the notion of equity through innovative programs.

Key message

- Experiments for reorienting health professional practice have been chosen as key strategies for tackling the social inequalities of health in a French Regional Health Agency

Human Papillomavirus preventive strategies in Northern France: is there a double generation burden?

Mohamed-Béchir Ben Hadj Yahia

MB Ben Hadj Yahia[1,2,3], M Wathelet[1], F Irdel[3], D Bonte[3]
[1]Department of Epidemiology, Health Economics and Prevention, Lille University Hospital, Lille, France
[2]Department of Epidemiology, Public Health and Quality of Care, Nord-de-France University, Lille, France
[3]Center for Preventive Medicine and Health Education, Institut Pasteur de Lille, Lille, France
Contact: bechirbhy@gmail.com

In France, human papillomavirus (HPV) vaccine coverage in females is low. Women compliance with opportunistic cervical screening recommendations is sub-optimal. This study aims to highlight attitudes towards HPV preventive strategies of women attending Centers for Preventive Medicine and Health Education.

From September 2013 to February 2014, a closed format questionnaire was administrated to women aged 28 to 65 years old, being mothers of at least one daughter aged 11 to 29 years old, and attending Centers for Preventive Medicine and Health Education in Northern France, in order to collect their attitudes towards HPV preventive practices (cervical screening for themselves and HPV vaccination of their daughters) and reasons for non-participation.

Within the 299 interviewed women, 241 (80.6%) declared being compliant with cervical screening recommendations (i.e. having had a pap smear within the last 3 years). Multivariate analyses show determinants of non-screening to be deprivation (OR = 2.77 [1.50–5.24]), multiparity (OR = 2.08 [1.12–3.93]), smoking (OR = 2.13 [1.01–4.43]) and no use of contraception (OR = 2.26 [1.21–4.35]).

The interviewed women reported being mothers of 427 daughters eligible for HPV vaccination. However, only 160 (37.5%) were vaccinated. Daughters' vaccination profile does not differ with their mothers' profile of compliance to cervical screening. When asked about reasons for not vaccinating their daughters, the mothers argued lack of information, especially for those not participating to the cervical screening programme (58.1% versus 23.3%, $p < 7.10–4$).

Daughters' likelihood for vaccination was shown to be associated with their mothers' history of pap smear testing in some settings (California, Flanders, Rhone-Alpes. . .). Nevertheless, these findings are not found in our study even for deprived women. Targeted populations offered free check-ups may benefit from preventive messages influencing their attitudes towards HPV preventive strategies.

Key messages

- Lack of information more than mothers' attitudes towards cervical screening seems to be associated with low HPV vaccination coverage in daughters of women attending Centers for Preventive Medicine
- Targeted populations offered free check-ups in Centers for Preventive Medicine may benefit from preventive messages influencing their attitudes towards HPV preventive strategies

A three-steps integrated program of hospital environmental surveillance: costs and potential savings

Daniele Ignazio La Milia

D I La Milia, P Laurenti, G Damiani, U Moscato, S Bruno, S Boccia, G Quaranta, B Posteraro, MG Ficarra, S Vincenti, M Milovanovic, M Avolio, M Raponi, W Ricciardi
Hospital Hygiene Unit –Agostino Gemelli Teaching Hospital, Università Cattolica del Sacro Cuore of Rome, Italy
Contact: danielus87@hotmail.it

Background

The three-steps integrated program of environmental surveillance (SIPES) carried out by Hospital Hygiene Unit (HHU) in Gemelli Teaching Hospital (GTH) ensure patients and healthcare personnel safety through a safe environment, reducing risk of healthcare associated infections (HAIs).

The aim of this study is to assess costs of SIPES and savings due to avoidance of HAI cases.

Methods

Costs for year 2014 was computed by wages of managers and technicians employees in HHU and budget for materials needed to carry out laboratory analysis.

A Budget Impact Analysis (BIA), from 2011 to 2014, was performed to evaluate savings. The variables included in BIA are annual number of healthcare production processes or procedures in GTH, number of samples surveyed by HHU and the resultant nonconformity, attack rate and unit cost of HAI reported in Medline database.

Results

Personnel employed in HHU is composed by 7 medical doctors, 2 biologists and 6 technicians. The total amount of gross salary of employees in 2014 is €446.000 and the budget for materials in 2014 is €20.000. The costs of SIPES of HHU in 2014 is €464.000.

BIA results show that the SIPES performed by HHU allowed the saving of €354.676 between 2011 and 2014, taking into account only the HAIs as adverse event and considering costs of their treatment.

Conclusions

The results of our study suggest that a well structured environmental surveillance program, like the one implemented and pursued by HHU to ensure patients and healthcare personnel safety, may allow to save financial resources considering all adverse event such as compensations after legal cases.

Further evaluations are needed to asses potential savings arising from prevention of all adverse events in hospital.

Key message

- Targeted environmental monitoring aimed at healthcare associated infection risk assessment and management represents an effective and cost saving tool

Automated incidence rate determination of healthcare-associated infections in intensive care units

Jeroen De Bruin

JS de Bruin
Centre for Medical Statistics, Informatics, and Intelligent Systems, Medical University of Vienna, Austria
Contact: jeroen.debruin@meduniwien.ac.at

Issue/problem

Healthcare-associated infections (HAIs) are the world's leading adverse events in healthcare delivery today, increasing morbidity, mortality and healthcare costs. Infection control programs have become mandatory in many countries, comprising infection surveillance methods in order to quantify the problem, and evaluate the effectiveness of interventions. Unfortunately, these surveillance methods are resource-intensive, and suffer from inter-rater variability. To minimize these drawbacks, we developed a method of automated epidemiology of healthcare-associated infections in intensive care units (ICUs) that determines incidence rates (IRs) of HAIs based on its previously determined effectiveness.

Problem

Given data from 10 ICUs at the Vienna General Hospital collected in 2011, we used the effectiveness parameters (sensitivity, specificity) of the automated infection detection program determined previously for individual infections (blood stream infections and urinary tract infections) to determine the overall IRs of these HAIs in ICUs. Our goals are to determine to what extend IRs of infections compare to rates previously determined by the Austrian Nosocomial Infection Surveillance System (ANISS) and to what extent time saving has been achieved using automated methods.

Results

In total 2,429 patient stays were recorded in during the study period. Results obtained by the automatic program were comparable to those from the 2011 ANISS study (blood stream infection, IR 5.48% vs ANISS 5.22%; urinary tract infections, IR 7.66% vs 7.59%). Compared to manual surveillance in the VGH, the program yielded a time-saving of 84.7%.

Lessons

Automatic determination of HAI incidence rates is an accurate method that avoids inter-rater variability and saves resources. However, its applicability depends on the availability of electronic data of sufficient quality, and methods need to be evaluated on a yearly basis to account for trends.

Key messages

- Automatic determination of HAI incidence rates is an accurate method that avoids inter-rater variability and saves resources
- Automated calculation of incidence rates depends heavily on electronic data quality and availability

Self-respect in an unjust world: a qualitative study into perceived classism in the Netherlands

Audrey Simons

D Groffen, A Koster, I Houkes, H Bosma
Social Medicine, Maastricht University, Maastricht, The Netherlands
Contact: audrey.simons@maastrichtuniversity.nl

Background

Getting more insight into perceived stigmatisation of low socioeconomic status (SES; i.e. classism), could help to clarify social and health issues in low SES groups. Therefore, we studied perceived classism, the use of coping strategies and its (health) consequences in low SES groups.

Methods

We performed a qualitative study with 16 semi-structured individual interviews. Participants from low SES groups were recruited via a charity organisation in a small city in the southern part of the Netherlands. The interviews were thematically analysed.

Results

Our preliminary results showed that people in low SES groups perceived classism, although mostly expressed implicitly. Directly and indirectly participants talked about being looked down on by 'rich' people, being afraid of being called 'lazy' (e.g. by emphasising how hard they worked in the past), and being treated unequally or unjustly. Shame was another aspect that played an important role (e.g. when not being able to give something in return). Participants expressed their pride to (unconsciously) compensate these feelings and to maintain their self-respect; e.g. by expressing their (financial) independency, and showing how active or tough they were, how nice their apartment was (even with second-hand furniture), or how appreciated they were by other people. Feelings of classism, together with having low self-respect and living in a poor financial situation caused stress, depressive symptoms, anxiety and pessimism, which also had negative physical health consequences.

Conclusions

Although people will not always express it directly, perceived classism seems to be a part of daily life in low SES groups in the Netherlands. Maintaining self-respect is important and people will use different strategies to cope with classism and threats to their self-respect. Developers of public health programs have to keep in mind that classism might affect behaviour and health of people in low SES groups.

Key messages

- Perceived classism is an additional (unconscious) struggle in the lives of poor people
- Strategies to maintain self-respect are important when facing classism

3.W.E. Poster walk: Communication and advocacy in public health

Evolution and revolution of dangerous drinking games among adolescents and young people

Stefania Barbieri

S Barbieri[1,2], P Feltracco[2], G Vettore[2], L Omizzolo[2], RM Gaudio[1], R Snenghi[3], R El Mazloum[3], S Vigolo[2], M Franchi[1], S Previato[1], C Ravaioli[1], A Marcolongo[2], E Guidi[1], A Stefanati[1], M Bergamini[1]
[1]Department Medical Science University Ferrara, Italy
[2]Department Emergency Urgency Padova, Italy
[3]Department Legal Medicine Padova, Italy
Contact: stefibarbieri118@gmail.com

Background and Goal of Study

Emergency teams have had to deal with an increasing number of young people acutely affected by alcohol and social drug related manifestations, potentially associated with major public health problems and high economic-social cost. Drinking games encourage young people to consume large quantities of alcohol within a short period of time, putting them at risk of alcohol poisoning.

Materials and Methods

The Emergency Department of the University Hospital, from 2006 to April 2015, examined a total of 1.224.768 people accessing the ED. We considered requests for Blood Alcohol Concentration (14.805), and the data on hospital services provided on clinical/medical history of consumption of alcoholic beverages in the hours immediately preceding access to the ED.

Results and Discussion

From the study, we can underline a highly meaningful prevalence of males, 69.43% in comparison with females, 30,57 %. Peak levels of BAC are recorded over the weekend, in relation to social events such as 'happy hour'', disco clubbing, binge drinking and other alcoholic games, especially on Friday and Saturday night. This correlates with the high rates of alcohol tests in ED during Saturday, 16.91%, and Sunday, 18.26%. It is worth noting the peak of 14.65% of BAC required on Thursday (there are about 61.000 students), this percentage may be indicative of the well-established practice of 'Wednesday University', especially among young people aged between 20–25 years.

Conclusions

Drinking games and social alcoholic events encourage young people, to consume large quantities of alcohol within a short period of time, putting them at risk of alcohol poisoning, which can potentially cause accidental injuries, suicide, and traffic incidents. Physicians have to be aware of the risks those behaviours are connected to, in order to recognize preliminary symptoms and develop a useful prevention program, focusing on adolescent and post-adolescent ages.

Key messages

- Evolution and revolution of dangerous drinking games among adolescents and young people roadmaps and visual action plans
- Engage phuysicians in understanding what behaviours had changed to reach the visions and goals

Premature ejaculation: is public health coming too late?

Edoardo D'Ippolito

E D'Ippolito[1], G Vogt[2,3,4], C Quercioli[1], C Hervé[2], N Nante[1]
[1]Post Graduate School of Public Health, University of Siena, Italy
[2]Medical Ethics and Legal Medicine Laboratory EA4569, Paris Descartes University, Centre Universitaire des Saints-Pères, France
[3]Laboratory of Human Genetics of Infectious Diseases, Necker Branch, Institut National de la Santé et de la Recherche Médicale INSERM-U1163, Paris, France
[4]Paris Descartes University, Imagine Institute, Paris, France
Contact: edodippo@live.it

Background

Premature ejaculation (PE) has been recognized as a syndrome for more than 100 years but its causes are mostly unknowns and only recently experts seem to converge on a definition(and diagnosis) of 2 sub-types(lifelong an acquired PE) based on:1)intercourse duration(respectively less than 1 and 3 minutes); 2)constant or acquired lack of control of the ejaculation; 3)psychological consequences. Given this partial knowledge on the topic and these recent developments, the aim of our study is to understand how public health' professionals may possibly contribute to tackle this condition.

Methods

A systematic review was made considering the ''Cochrane reviewers handbook'' and the WHO ''Handbook for guidelines development''. PubMed was used as search-engine (last update March 2015).

Results

56 articles passed the selection. The average duration of sexual intercourse is 5–6 minutes.

2.5% of men last less than one minute but 20–30% think they have a problem of PE however. 52% (U.S.A., Germany and Italy) and 69% (Greece) of those ones never considered to consult a doctor partially because of embarrassment (about 30%) and belief that there is no treatment (13%, 47%). The 20% of men do not know where to ask for help and 62% prefer to consult the Internet (Greece). The most effective treatments (from three to about 11 folds more duration) are off-label antidepressant, causing refusal to start (30%) and follow therapy (30%).

Conclusions

A big taboo still exists and men's approach to PE seems far from being optimal, because of under-consultation, self and misdiagnosis and possibly mistreatment. Public health' professionals may give their contribution initiating or enhancing public information campaigns to raise large scale awareness of correct management of PE, organizing more discreet consultation's possibilities, possibly using the internet, and mediating and advocating to overcome the possible off-label status and antidepressant connotation of more effective treatments.

Key messages

- A big taboo still exists and men's approach to PE seems far from being optimal because of under-consultation, self and misdiagnosis, under or possibly mistreatment
- Public health' professionals may initiate or enhance public information campaigns, organize new services, advocate to overcome the off-label status and antidepressant connotation of treatments

Improving Communicative Practice in Health Care through a Multi-strategic National Initiative

Peter Nowak

P Nowak, M Sator
Gesundheit Österreich (Health Austria), Austria
Contact: peter.nowak@goeg.at

One determinant of health literacy of a population and of the outcomes of health care is the quality of personal communication in health care settings. Despite the successes which have been made within medical education a significant gap remains or even widen between training and actual communicative practice in clinical settings. Research indicates that for improving health care communication sustainably a wide range of determining factors need to be changed. Developing communication in health care is a key factor for developing a patient centred health care but implicates a paradigm shift in health policy. Up to now we are not aware of any national policy to improve health care communication in an European country.

On behalf of the Austrian Federal Ministry of Health and the Austrian Social Security a policy paper was developed in 2014 by a literature review and a series of expert interviews that

- defined high quality of communication in health care (focusing on doctor-patient-communication as a first step),
- analysed communication quality in Austria,
- developed a multi-strategic intervention model on a national level

On this basis an involvement process for all stakeholders was started to develop a national strategy and an action plan for implementation. Up to now first lessons from this process are:

- Personal communication in health care was first underestimated by the political stakeholders in its significance for health care policy and its complexity
- The complexity of relevant factors to be tackled include diverse sectors like health care organizations, politics, economics, science, education, media, legislation and needs intersectoral cooperation
- Providing systematic information to policy makers opened a careful deliberation on common aims and needed resources
- On the level of health care professionals and patient representatives this issue is high on the agenda, but is in conflict with other pressing issues in times of scarce resources

Key messages

- Developing communicative practice in health care needs a complex intersectoral policy process
- National initiatives will need a long time perspective to be sucessful

Maternal age and congenital anomalies: 11 years of the national registry of congenital anomalies

Paula Braz

P Braz, A Machado, CM Dias
Department of Epidemiology, National Health Institute Doutor Ricardo Jorge, Lisbon, Portugal
Contact: paula.braz@insa.min-saude.pt

Background

Congenital anomalies (CA) can be defined as structural or functional anomalies that occur during pregnancy and can be identified prenatally, at birth or later in life. In Portugal, since 1997 the Nacional Registry of Congenital Anomalies (RENAC), a population-based registry, is a strategic instrument in surveillance and improve knowledge in this field. The aim of this study is to investigate for the period 2000–2010, the relationship between maternal age, young or advanced and the risk of structural congenital anomalies.

Methods

A descriptive and retrospective study was carried out using the data from RENAC. Prevalence rates were calculated using the number of cases reported in newborns, fetal deaths from 20 weeks gestation and cases that were subsequently terminated following prenatal diagnosis of a CA (International Classification of Disease [ICD-10]; Q00–Q99). The statistical significance of the association was studied using the chi-square test with a 5% significance level.

Results

Considering the main subgroups of CA, significant association with maternal age was observed in all except for the respiratory system anomalies ($p = 0.395$). In young mothers, less than 20 years, higher prevalence ($p < 0.001$) of gastrosquisis (3.9/10000) and cleft lip (2.3/10000) were observed when compared to remain age groups (1.2/10000 and 1.0/10000 respectively). We also detected high prevalence of CA of the circulatory system in mother with 35 years and more. Finally, and considering chromosomal anomalies, the prevalence increases 28,4/10000 in the 35–39 age group compared to the previous, and 83,6/10000 in the 40 and more.

Conclusions

The results are in accordance with the literature and indicate that specific CA's are associated with maternal age. Teenage mothers are at higher risk of non-chromosomal anomalies, but older mothers (35 years and more) are not. In these age groups, special monitoring should be done considering other risk factors.

Key messages

- A surveillance system as RENAC is a strategic instrument in surveillance and improve knowledge in CA namely regarding information on risk factors
- Given the increase in maternal age and its association to some subgroups of CA specific primary prevention programs should be developed

The Angelina Jolie effect and the increase in the breast cancer screening-related Internet activities

Nicola Luigi Bragazzi

NL Bragazzi[1], D Tramalloni[1], I Valle[2]
[1]School of Public Health, Department of Health Sciences (DISSAL), University of Genoa, Genoa 16132, Italy
[2]S.S.D. ''Popolazione a rischio'', Health Prevention Department, ASL3 Genovese (Local Health Unit 3), Genoa 16151, Italy
Contact: robertobragazzi@gmail.com

Introduction

Angelina Jolie's public disclosure of having a mutated gene conferring a high risk of developing breast cancer and her consequent choice of undergoing a double prophylactic mastectomy has attracted worldwide media coverage. The increased interests in hereditary breast cancer as well as the increased referral to clinics for performing a breast cancer genetic screening or an increased usage of screening programs have been termed as ''Angelina Jolie effect''. Even though sometimes criticized, this form of advocacy has raised public awareness of the burden of breast cancer and the importance of prevention.

Methods

To assess the potential impact of the ''Angelina Jolie effect'' on the interest in online information related to breast cancer screening, weekly search volume data for breast cancer and breast cancer screening-related terms in Italy and other European countries were downloaded from Google Trends (GT), from 1st January 2004 to 30th April 2015.

Results

The breast-cancer related Internet activities have increased from 14.65 ± 6.78 to 17.26 ± 4.02 (p-value <0.001; 1.18-fold increase), the mammography-related queries from 4.92 ± 3.95 to 8.43 ± 2.02 (p-value <0.0001; 1.71-fold increase). Whilst the interest for breast cancer before Angelina Jolie's disclosure was declining throughout the time and abruptly increased after her announcement, the interest for breast cancer screening program before Angelina Jolie's uncovering of her health status was steady and increased immediately after. This behaviour was specific for mammography and did not characterize the other screenings (such as cervical or colorectal cancer screenings). A similar trend can be noticed also in other European countries.

Conclusion

The ''Angelina Jolie effect'', since 2013, has been having a long-lasting effect, which has lead to an increased interest in surfing the Web and searching for information related to mammography. GT can be helpful in monitoring the impact of advocacy in the population.

Key messages

- Angelina Jolie's public disclosure has lead to an increase in breast cancer screening-related Internet activities
- Google Trends can be helpful for workers in the field of Public Health for monitoring the impact of advocacy

Sustainable partnership between civil society and academic medical institution:Experience in Romania

Alina Ungureanu

AG Ungureanu
Association for Development and Social Inclusion (ADIS), Bucharest, Romania
Contact: allyungureanu@yahoo.com

Background

Further to the EU Council Recommendation, Section 2 of December 2013 on measures of effective integration of the Roma in EU Member States, horizontal anti-discrimination policies require the implementation of measures to combat discrimination and prejudice against Roma by improving public awareness. The Council recommended actions such as introduction of non-discrimination in the educational curriculum for medical students (Section 2, 2.4. Letters B). Health professionals play an essential role in protecting health rights by fulfilling their medical mission in their professional relationship with vulnerable patients.

Methods

Since 2012, 619 students from five Romanian medical universities (Gr. T. Popa Iasi, Iuliu Haţieganu Cluj Napoca, Carol Davila Bucharest, UMF Targu Mures and Lucian Blaga Sibiu) completed an optional course on ‘Ethics and non-discrimination against vulnerable groups in the health system’, developed by NGO ADIS with Univ. Gr. T. Popa Iasi in 2011.

Results

Starting with the academic year 2014–2015, an academic course with focus on knowledge and ethical foundations of non-discrimination of patients belonging to vulnerable groups was introduced in the compulsory curriculum of Lucian Blaga Medical University of Sibiu. NGO ADIS and the university are working together to develop this initiative into a public policy that changes the attitudes, perceptions and behaviors towards vulnerable patients with focus on Roma, and improves access of Roma to healthcare in Romania.

Conclusions

Our project is unique as an initiative launched by an NGO together with a medical university, which improves future doctors’ awareness of endemic problems faced by Roma such as discrimination, and enhances Roma access to healthcare by raising the quality of the services.

Key messages

- Our project addresses any health professional who comes into contact with Roma patients
- It improves the situation of Roma in the doctor-patient relationship, enhances access to healthcare for the Roma community, and combats discrimination in the Romanian health system

Effective communication as factor for the results of cardiac patients’ treatment in Bulgaria (2014)

Makreta Draganova

T Vekov[1], S Aleksandrova-Yankulovska[1], M Draganova[1], A Ivanova[2], N Veleva[1]
[1]Faculty of Public Health, Medical University – Pleven, Bulgaria
[2]Bulgarian Cardiac Institute, Sofia, Bulgaria
Contact: makreta_99@yahoo.com

Introduction

The importance of physician’s communication skills for the treatment process is proved in increasing number of studies. According to current Bulgarian legislation patient’s informed consent is compulsory in cases of invasive medical procedures. Inefficient physician-patient communication is among the reasons for patient’s rejection of such procedures and has negative effect on treatment results.

The aim is to study the factors that influence the decision for refusal of cardiac surgery in patients passed invasive diagnostic procedures in Bulgaria and to compare their treatment results with those of patients with surgery.

Material and Methods

We studied 758 patients with multi-vessel disease and/or valvular heart disease that have passed invasive diagnostic procedures in three cardiac hospitals in Bulgaria from January 2013 to December 2014. 188 (24,8%) of them refused cardiac surgery. Self-administered questionnaires, three-month check-up exams and a monthly telephone interview with trained nurse were applied to this group. Treatment results of the studied group were compared to those of a control group of 570 patients that have passed cardiac surgery.

Results

Leading causes for cardiac surgery refusal are high uncertainty of the health results 94 (50%); advanced age 60 (31,9%) and lack of trust in physician’s recommendations 22 (11,7%). The one-year mortality rate of the inquired patients was found to be 6,2% higher than that of patients with surgery.

Conclusion

The cardiac surgery decision is not supported by effective patient-physician communication. To a great extent this is due to insufficient communication skills of the physicians. Enhancement of those skills would lead to growth in the number of heart surgery informed consents which in turn would improve the overall treatment results in cardiac patients in Bulgaria.

Key messages

- The negative effects of wrong physician-patient communication decrease the possibilities for optimal treatment results
- Decrease in one-year mortality rates of cardiac patients due to surgery refusal can be achieved through improved communication skills of physicians in Bulgarian cardiac hospitals

Mortality risk amongst nursing home residents evacuated after the Fukushima nuclear accident

Shuhei Nomura

S Nomura[1], M Blangiardo[2], M Tsubokura[3], Y Nishikawa[4], S Gilmour[5], M Kami[3], S Hodgson[2]
[1]Department of Epidemiology and Biostatistics, School of Public Health, Imperial College London, London, UK
[2]MRC-PHE Centre for Environment and Health, Department of Epidemiology and Biostatistics, School of Public Health, Imperial College London, London, UK
[3]Division of Social Communication System for Advanced Clinical Research, the Institute of Medical Science, University of Tokyo, Tokyo, Japan
[4]Soma Central Hospital, Fukushima, Japan
[5]Department of Global Health Policy, Graduate School of Medicine, University of Tokyo, Tokyo, Japan
Contact: s.nomura13@imperial.ac.uk

Background

Considering the health impacts of evacuation is important in disaster planning for elderly populations; however, little is known about evacuation-related mortality risks. We have conducted a retrospective cohort survival study of elderly evacuees including comparative analyses with non-evacuees, following the Fukushima nuclear accident on 11th March 2011.

Methods

1,216 residents from seven nursing homes located 20–40 km from the nuclear plant who were admitted in the five years before the accident joined this study. Demographic and clinical characteristics were obtained from medical records. Evacuation histories were tracked until mid 2013. To assess the associations between evacuation and mortality after the accident, the pre and post disaster relative mortality incidence, and hazard ratios in Cox regression were employed.

Results

There was a substantial variation in mortality risks post-disaster across the five evacuated facilities ranging from 0.77 to 2.88. Initial evacuation from the original facility had substantial impact on mortality with hazard ratio of 3.37

(95% CI: 1.66–6.81) against non-evacuation, though subsequent evacuations had no significant mortality risk. No meaningful influence of evacuation distance on mortality was observed.

Conclusions

Evacuation may not be the best life-saving strategy for elderly people. Following the Fukushima accident evacuations of some facilities were inevitable because of staff deficiencies and other resource shortages, but at other sites sheltering in situ might have minimized health risk. Also, facility-specific disaster response strategies, including on-site relief and care, may have a strong influence on survival. In a mass displacement disaster, careful planning and coordination with other nursing homes, evacuation sites and government disaster agencies is fundamental to reduce the mortality.

Key messages

- Following the 2011 Fukushima nuclear accident, Japan, initial evacuation (vs. non-evacuation) had a substantial impact on mortality
- Relevant authorities should support care facilities so that, during/following a disaster residents can shelter in place for at least sufficient time to adequately prepare initial evacuation

The Realities of Public Health Collaborative Research with the Non-Profit and Voluntary Sector

Tony Robertson

T Robertson[1], M Estrade[1], E Gracey[2], K Smith[3]
[1]Scottish Collaboration for Public Health Research and Policy, University of Edinburgh, Edinburgh, UK
[2]Community Health Exchange/Scottish Community Development Centre, Glasgow, UK
[3]School of Social and Political Science, University of Edinburgh, Edinburgh, UK
Contact: tony.robertson@ed.ac.uk

Background

To identify the key opportunities and issues in research collaborations between academics, health professionals and the non-profit/voluntary sector.

Methods

Qualitative one-day symposium with fifty participants from across policy, practice (healthcare and the non-profit/voluntary sector) and research in Scotland. The research team facilitated round-table discussions using case studies, with participants recording their main discussions points through simple summary notes. Facilitated World Café session on the research process followed, with facilitators recording the iterative discussion points. Responses were then analysed thematically to identify key themes, relating to the theoretical and practical implications of collaborative research with the non-profit and voluntary sector.

Results

Three key themes were identified from the case study discussions including key facilitation techniques, barriers and key recommendations/best practice. The second discussion moved onto more practical solutions/issues, generating five key themes around partnership, planning, research methods, tailored dissemination and lasting impact. Across the discussions relevant points included the need to engage and collaborate as equal partners from the start, with trust and sustainable projects built-up from this foundation. However, lack of time, short-term funding, differences in expectations/values and fears of a lack of impact could, and do, hamper collaborations. Even where strategies are employed to counter potential issues and make these partnerships as strong as possible, there remains confusion about demonstrating and achieving meaningful change and impact to funders and the public.

Conclusions

Collaboration means being equal partners while building on each other's strengths, but to do this effectively these collaborations need time and partnership throughout the process. Demonstrating impact remains something of a black box though to all partners.

Key messages

- Collaboration within and between sectors is becoming increasingly expected by research funders and stakeholders
- While much good practice exists, concerns remain especially with defining and measuring impact

Evaluation of first-year medical students' attitudes about gender equality

Zeynep Sedef Varol

ZS Varol, M Ciceklioglu, S Taner
Deparment of Public Health, Ege University Faculty of Medicine, Izmir, Turkey
Contact: zeynepvarol87@gmail.com

Background

Differences between men and women in health consist in the interaction of biological, psychological, socio-economic factors. Recognition of gender differences can prevent inequity in healtcare services. The aim of this study is to evaluate the attitudes of first-year students in a medical faculty regarding gender equality.

Method

Population of this cross-sectional study is consisted of 356 (81%) of 435 first-year students in Ege University Faculty of Medicine, in 2013–2014 period. Attitudes toward gender equality were assessed using "Gender Equality Scale's" Turkish version that includes 24-item questionnaire and two sub-scales. Data were analyzed using; average, standard deviation, t-test in independent groups.

Results

Gender Equality Scale's "Traditional Gender Norms" sub-scale average score was 43.1 ± 5.1, "Equalitarian Gender Norms" sub-scale score average was 19.6 ± 2.1, and total score average was 62.6 ± 5.6. Scale average score (SAS) of female students were significantly higher than male students (respectevly 65.3 ± 3.9 and 60.6 ± 5.8). ($p < 0.001$)

SAS of the students whose mothers were unemployed/housewifes (61.9 ± 5.8), were significantly lower than students that had a working mother (63.5 ± 5.3). SAS of students whose mother's and father's educational level was primary and below (respectevely 61.3 ± 5.9 and 59.9 ± 6.2), were significantly lower than students whose mother's and father's educational level was upper than primary school (respectevly 63.2 ± 5.4 and 63.2 ± 5.4). ($p < 0.05$)

Conclusion

According to findings, this study indicate that gender equality attitude is impressed by socio-demographic variables. We suggest that curriculum changes should be made to improve the perception of gender equality in education and reduce the level of gender equality attitude differences arising from the socio-economic characteristics of students.

Key Words: Gender, attitude, medical students

Note: This research was presented in 17th National Public Health Congress in Turkey.

Key messages

- Recognition of gender differences can prevent inequity in healtcare services
- gender equality attitude is impressed by socio-demographic variables

Think Tanks for Public Health Action – a Swedish Example

Charli Eriksson

C Eriksson[1], M Falck[2], Pi White[3], M-L Løchen[4]
[1]Faculty of Medicine and Health, School of Health and Medical Science, Örebro University, SE-70182 Örebro, Sweden;
[2]Public Health Division, Västerbotten County Council, Umeå, Sweden;
[3]National Institute for Health and Care Excellence, London, United Kingdom;

[4]Department of Community Medicine, UiT The Arctic University of Norway, Tromsø, Norway
Contact: charli.eriksson@oru.se

Background

Think tanks are non-governmental institutions that are set up with the aim of influencing policy. The Swedish think tank Tobaksfakta (Tobacco Facts) was formed by Health Professionals against Tobacco in October 2010 and focusing on measures to reduce tobacco use toward a tobacco free society.

Methods

An evaluation has been conducted by an external panel. It included among other things self-evaluation including a SWOT-analysis and quality assessment by a panel of independent experts. The evaluation also considered organizational structure, resources, goal structure and work processes (monitoring, investigations, knowledge materials, website, press activities, twitter and social media, dissemination of knowledge, European and international tobacco prevention work).

Results

The Tobacco Industry Project has functioned as an important vehicle for the overall efforts made by Tobaksfakta The project has performed impressive work in relation to relatively limited economic resources. The Tobacco End Game is a challenging and future-oriented project that has a great potential. Tobaksfakta wants a Swedish government that reaches a decision on a plan to phase out smoking by 2025. The idea is that such a decision shall be achieved by advocacy at all levels of society.

The SWOT-analysis showed that strengths include competence, having an effective organization and member organizations, and being a strong provider of information and opinion leaders. Weaknesses include limited economic and human resources. Threats include poor economic resources. Among the opportunities available is strengthening of communicative work, networking and extended cooperation, and the Tobacco End Game.

Conclusion

Tobaksfakta is a classic think tank but needs independent financing. It shall continue with intellectual argument not covert lobbying. Focusing on structural issues gives added value. The think tank is an efficient and professional organization.

Key messages

- A think thank can be important for achieving public health actions
- The Swedish think tank Tobaksfakta is one of the key actors on the Swedish landscape of tobacco prevention

''Let's drink less by half'' – a campaign to support alcohol policy reform in Estonia

Riina Raudne

R Raudne[1], A Uusberg[2], D Vaarik[3]
[1]Health Estonia Foundation, Estonia
[2]University of Tartu, Estonia
[3]Independent researcher
Contact: riina.raudne@gmail.com

Introduction

Alcohol policy reform in Estonia has remained elusive even though the recent political rhetoric have increasingly acknowledged the need to reduce alcohol harms.

Objectives

Based on extensive formative research, a multilayered campaign was conceived in June 2013 to build a social movement to support alcohol policy reform in Estonia. The explicit long-term aims of the campaign are to 1) reframe public alcohol debate from medical discourse to a social justice issue with political and policy solutions 2) engage and educate non-medical spokespeople on alcohol policy measures 3) change norms about drunkenness and drink refusal in social settings.

Methods

The campaing is run by an independent social enterprise and funded by grants and filantropic donations. Building a dialogue with wider alcohol discourse, the approach is opportunistic and methods range from relatively active social media coverage and small-group seminars to extensive mass media.

Results

In the first two years of the campaign, the phrasing ''Let's drink less by half'' appeared in prime ministers's inauguration speech and in government coalition program as an aim for 2030. The coalition agreement from March 2015 also allows for ban of alcohol advertising featuring lifestyle elements, increase of alcohol excise tax increase so that alcohol does not become cheaper in the next 4 years. In an opinion poll in March 2015, 80 per cent of Estonian population supported complete alcohol advertising ban similar to that of tobacco advertising ban. In 2015, 107 adults trained to offer alcohol policy seminars at schools and to become spokespeople for the cause.

Conclusions

Alcohol advocacy campaigns can benefit from approaches that build on qualitative research, take on multiple aims and stay in dynamic dialogue with evolving alcohol discourse.

Key messages

- An innovative campaign was created to reframe the alcohol debate as a social justice issue with political solutions
- The phrasing of a public health campaign to reduce drinking by half has been taken up by the political rhetoric

The importance of team work for improving the health situation of Roma communities

Emanuela Ignatoiu-Sora

E Ignatoiu-Sora[1], G Radulescu[1], EC Bratu[1,2], D Radulescu[1], M Sandu[1], A Cucu[2,3], A Galan[3]
[1]Roma Center for Health Policies-SASTIPEN, Bucharest, Romania
[2]University of Medicine and Pharmacy, Bucharest, Romania
[3]National Institute of Public Health, Bucharest, Romania
Contact: emanuela.ignatoiu@sastipen.ro

This presentation is based on findings from projects on the National Network of Roma Mediators, implemented by SASTIPEN in partnership with the National Institute for Public Health. The projects focus on strengthening the network of Roma Mediators in order to improve the health situation of Roma communities. The interventions used are very different, from training intervention for health mediators -to the developing of teams in Roma communities comprising of a health mediator and a community medical assistant. These teams are now working on health issues, like the health of mothers and infants, reproductive health, and preventive care. The projects are designed to fill in a gap which appeared in relation to the health care of Roma communities in Romania in 2008, following a general structural reform. Although the reform was intended to re-organize the administrative life towards decentralization, it had some unintended, yet serious consequences. The main question to be asked is how to prevent health policy changes when implementing reforms in other areas.

If in 2008 there were 800 health mediators employed in Romania, currently there are less than 400. This is even more concerning in the light of statistics showing an accelerate rate in people refusing vaccination. The intervention of Roma Health Mediators in the communities has been proven to have positive impact, especially for vulnerable population.

The main lesson is how to counteract unintended policy consequences- for instance by the creation of team of workers in vulnerable communities: whilst community medical assistants are medically trained, health mediators have thorough, inside knowledge of communities and they facilitate access to these communities.

Key messages

- Integrative approach is key for the promotion of health in vulnerable communities
- Structural reforms may cause unintended, yet serious, consequences for the health care of vulnerable communities

Twitter as a public tool for effective knowledge communication during health crisis

Evika Karamagioli

E Karamagioli, Agis Terzidis, T Rozenberg
Medical School, University of Athens, Ms International Medicine-Health Crisis Management,Athens, Greece
Contact: karamagioli@gmail.com

The exchange of information within and between public authorities, media, individuals, civil society and other groups before, during, and after a crisis is considered as a key component for an effective crisis communication. Social media and Twitter in particular are becoming beneficial tools for public authorities toward this end.

After analyzing Twitter usage by public authorities in 3 major incidences in international and national level (Ebola, Charlie Hebdo, Boston marathon), we identify the way Twitter is contributing to the changing landscape of risk and crisis communications and we propose concrete terms and condition for public authorities so as to ensure that its usage can be beneficial for crisis management.

Ranging from preparing and receiving disaster preparedness information and warnings and signalling and detecting disasters prior to an event to reconnecting community members following a disaster, the uptake of effective use of social media by emergency services, crisis managers and other public authorities and governmental bodies has implications, not only on the external communication, but also on the working practices and in the organizational culture, the organizational structure, etc.

While there is no one-size-fits-all approach what governments and other public organizations could adopt regarding the creation of disaster social media tools and the formulation of disaster social media implementation processes introducing codes of practices at government level, training of officials in charge, respect of personal data framework and change management tools are issues to consider.

Key messages

- Twitter is becoming a powerful public tool for effective knowledge communication during health crisis
- The uptake of social media has implications, not only on the external communication, but also on the working practices and organizational structure

Perceptions of Patient Involvement among Health Professionals in Denmark, a Mixed Method Study

Alexandra Ryborg Jønsson

ABR Joensson, V Baker
Research Unit for General Practice, University of Copenhagen Denmark
Knowledge Center for User Involvement in Health Services, Denmark
Contact: aj@vibis.dk

Background

The number of people living with chronic diseases is growing in Denmark as well as the rest of Europe. Recently, scholars have proven that a chronic patient care-management approach which includes patient involvement is more effective. As a result, the Danish health services has come under increasing pressure to involve patients; yet the idea of involvement is not well defined leaving health professionals to act upon their own beliefs and individual approach. To describe Danish health professionals' perception of patient involvement, in particular, what health professionals point to as examples of involving patients in their own everyday work practices.

Methods

An empirical based mix-method study using (1) semi-structured interviews with 19 health professionals, (2) ethnographic non-participant observation at three Danish public hospitals (3) Survey study of 2000 physicians and 2000 nurses working in relevant hospital settings.

Results

Health professionals expressed high awareness of advantages in user involvement, however, when analyzing the informant's expressions on user involvement it becomes clear that there is no distinct and homogenous perception of the concept; conceptually this is a largely operational definition. Patient involvement is seen as (i) providing information regarding treatment and options (ii) self-care (iii) shared decision-making (iv) informed consent (v) meeting patients with an empathic and individual approach. The survey study indicates that the three first approaches are the most frequent.

Conclusion

This study suggest that a locally defined conception based upon evidence based methods for patient involvement might prevent health professionals from involving patients in ways that does not recognize the attitudes to risk, values and preferences of each individual patient.

Key messages

- The term ''Patient involvement'' was not clearly understood by health professionals and often meant different things to different people
- The main barrier to patient involvement was the time and space available for health professionals to spend with patients

Falls in elderly: A newly confronted public health problem in Turkey, 2013

Ozge Yavuz Sari

HO Ozcebe[1], SU Uner[1], , GT Telatar[2], , BKB Kucuk Bicer[1]
[1]Hacettepe University Institute of Public Health, Ankara, Turkey
[2]Provincial Director of Public Health, Sinop, Turkey
Contact: ozgeyavuz@hotmail.com

The rapid increase of elderly population is noticed recent years in Turkey. The percentage of elderly people has reached at 8% of total population in 2014. Falls are highly prevalant health problem among elderly people as one of every three elderly falls each year and faces with fatal or non fatal injuries in the world. The aim of the study is determining the prevalance and risk factors of falls in elderly living in the province of Sinop.

This crossectional study was conducted with a clustered sample consisting of 2269 elderly (aged 65 and over) registered in the family physician and living in the city of Sinop, Turkey. Data were collected with a face-to-face questionnaire assesing socioeconomic/demographic factors, general health status, health related quality of life, daily activities, depression status, awareness and behaviours about falling and the use of health services. In this abstract the prevalance and health related/sociodemografic risk factors of falling will be discussed. The mean age was 73.3 (SD:6.65) and 50.3% of the participants were female. 37.2% of elderly has fallen at least once after 65 years of age and %63.7 of these participants has fallen within the past 1 year. Falling in the last year were significantly more frequent in men, participants aged over 85, who were retired and have a disease requring medication. Having inadequate information about falls, having some diffuculties in walking, bathing, dressing or daily activities were found to be related with falling within the past year. 58.7% of elderly who has fallen within the last year was concerned about falling. Only the %15.1 of the participants wanted to be informed about falls and 54.9% of these participants wanted to be informed by a physician.

This is the first and largest population based study about elderly falls in Turkey. The prevalance of falls was higher than we expected. The role of family physicians in follow up programmes for elderly will become even more important in Turkey

Key message

- Falls in elderly is a growing public health problem in Turkey. Follow up programmes, fall risk assessment and management are needed urgently to be developed and carried out in primary health settings

Understanding Dementia within National Dementia Policy in England: A Critical Discourse Analysis

Judith Sixsmith

J Sixsmith, M Callender
Institue of Health and Wellbeing, University of Northampton, Northampton, UK
Contact: judith.sixsmith@northamtpon.ac.uk

Background

Dementia is recognised as a public health priority globally. There are around 800,000 people with dementia in the UK and by 2040; this figure is expected to double. Since the publication of the 'Living Well with Dementia': A National Dementia Strategy' in 2009 in England, a series of dementia policies have been established to improve the lives of people with dementia through increased societal awareness of dementia, earlier diagnosis and a cultural change in health and social care. This research aimed to identify dominant discourses underpinning national policy and consider their implications on the development of health and social care training.

Methods

337 hits were produced in a website search of ministerial departments, agencies and public bodies. Of these, 13 English policy documents (2009–2013) were identified and subject to critical discourse analysis which considered textual, social and discursive practices (Fairclough, 2009).

Results

Discourses were organised under five themes: dementia (responsibility, momentum), people with dementia (exclusion, fear); healthcare professionals (misunderstanding, (de)motivation); dementia awareness (collaboration, (de)valuation) and dementia training ((in)flexibility, (dis)empowerment).

Conclusions

Dominant discourses framed people with dementia as passive and marginalised within healthcare while practitioners were represented as uninformed yet powerful. A subversive context of disempowerment located GPs and nurses as gatekeepers to choice/control of people with dementia's lives thereby reducing their capacity to resist oppressive healthcare practices operating in the service interest rather than in the interest of the people they serve.

Key messages

- The findings are illustrative of how cultural transformation of dementia care in England is suppressed and how messages of change can often rest at the level of rhetoric
- Local authorities are responsible for commissioning dementia services but people with dementia are largely effectively from decision-making/service development via health/social care gatekeepers

3.W.N. Poster walk: Child and adolescent public health

Early life area-level mobility and subsequent mental health outcomes in adolescents and young adults

Foteini Tseliou

F Tseliou, D O'Reilly, A Maguire, M Donnelly
Centre for Public Health, School of Medicine, Dentistry and Biomedical Science, Queens University Belfast, Belfast, UK
Contact: ftseliou01@qub.ac.uk

Background

Early life events, such as childhood residential mobility, can have a substantial effect on later mental health outcomes. There are several aspects of such a change that may contribute to the overall effect on the individual. Area of residence is a factor that has previously yielded inconsistent findings due to methodological problems. This study utilises administrative measures aiming towards an unbiased examination of the association of area deprivation, social mobility and mental health.

Methods

A Census-based record linkage study of 28% of the Northern Ireland population was used. Our sample was children aged 0–8 years at the 2001 Census, alive and enumerated in the 2011 Census (n = 49,762). Self-reported chronic mental ill-health in the 2011 Census was used as outcome measure and address changes were assessed biannually between Censuses. Logistic regression models were built adjusting for individual characteristics, household composition and marital dissolution. The relationship between area type change and non-mental health outcomes was also tested.

Results

Overall, 54% (n = 26,808) of the cohort had changed address at least once over the 10 year study period, and 0.5% (n = 263) reported chronic mental ill-health in the 2011 Census. There was a graded relationship between number of address-changes and mental ill-health (ORadj 3.67, 95%CI = 2.11–6.39 for 5 or more moves). Moving down the social stratum from a more affluent area to a more deprived area was associated with an increased likelihood of poor mental health.

Conclusions

This large study confirms the relationship between childhood mobility and later poor mental health. It illustrates that a child moving down the social stratum has worse mental health outcomes compared to those who move within their own area. Future research practice and policy agendas should focus on how early life adverse effects might be minimised.

Key message

- There is a dose response relationship between the number of moves and the likelihood of reporting a mental health condition that is mediated by area environment

Season of birth and celiac disease: Evidence from population based study

Fredinah Namatovu

F Namatovu[1], M Lindkvist[1], A Ivarsson[1], C Olsson[2], O Sandström[1,3]
[1]Department of Public Health and Clinical Medicine, Umeå University, Umeå, Sweden
[2]Department of Food and Nutrition, Umeå University, Umeå, Sweden
[3]Department of Clinical Sciences, Paediatrics, Umeå University, Umeå, Sweden
Contact: fredinah.namatovu@epiph.umu.se

Background

Celiac Disease (CD) is an autoimmune chronic small intestinal immune-mediated enteropathy triggered by ingestion of gluten among genetically predisposed individuals. This study aimed at investigating whether season of birth was associated with developing celiac disease during childhood.

Methods

Through the Umeå SIMSAM Lab (Swedish Initiative for Research on Microdata in the Medical and Social Sciences) we accessed linked data from the Swedish Medical Birth Register on births in Sweden from 1991 to 2009 and from the National Swedish Childhood Celiac Disease Register with cases diagnosed before 15 years of age during the same period. The study population consisted of 1 912 204 live births from which 6 596 off springs later developed CD. We included information on season of birth (winter and summer) and also stratified season into: winter (reference), spring, summer and autumn.

Results

Children born during summer had an increased risk for CD (odds ratio (OR), 1.08; 95% CI, 1.03–1.13) compared to those born during winter. When season was stratified into four seasons using winter as the reference, a significant increased risk was associated with being born in spring (OR 1.07; 95% CI, 1.04–1.19), while no risk was associated with being born in summer and autumn, (OR 1.05; 95% CI, 0.98–1.13) and (OR 1.01; 95% CI, 0.94–1.09), respectively.

Discussion

Season of birth is an environmental risk factor for CD, our results are consistent with current knowledge and suggests a theoretical model that integrates causal environmental exposure(s) with a seasonal pattern such as infections, gluten introduction, ultraviolet-B exposure and vitamin D status.

Key message

- Season of birth is associated with celiac disease

Bullying, cyber-bullying and health risk behaviours in emerging adulthood

George Kritsotakis

G Kritsotakis[1], M Papanikolaou[1], AE Philalithis[2]
[1]Nursing Department, Technological Educational Institute (TEI) of Crete, Greece
[2]Department of Social Medicine, Faculty of Medicine, University of Crete, Greece
Contact: gkrits@staff.teicrete.gr

Background

Both bullying and cyber bullying have a long-term negative impact on mental health and social life that extends to adulthood. However, their possible associations with multiple health risk behaviours have not been explored yet. This study aims to explore the exposure of students to bullying through the six secondary education years and its associations with cyber-bullying and nine health risk behaviours during university years.

Methods

Students of TEI Crete, Greece, completed an anonymous questionnaire based on HBSC and ESPAD studies together with 'Cyberbulliyng and its Effects', and the 'Retrospective Bullying Questionnaire' in 2013. Complete data for this cross-sectional analysis were available for 812, mostly 2nd year, undergraduate students (age = 19.3 ± 2 years; girls = 66.1%). The 9 health risk indices examined were: increased BMI, physical inactivity, smoking, alcohol misuse, binge drinking, drunkenness, drug use, multiple sex partners and not using condoms. Statistical analyses and logistic regression models were performed with SPSS 21.

Results

Victims of school bullying (61.7%) exhibited increased odds (OR = 2.52, 95%CI 1.61–3.94) for cyber-bullying others (15.8%), and be cyber-victimised (29.9%, OR = 3.27, 95%CI 2.30–4.65), whilst school bullies (20.9%) were particularly likely to cyber-bully others (OR = 8.03, 95%CI 5.33–12.11) and be cyber-victimised (OR = 4.51, 95%CI 3.16–6.44) in university. Being bullied in school and cyber-bullied in university showed greater odds for not using condom and using drugs, respectively (for both $p < 0.001$). Being cyber-bullied was also associated with smoking and increased alcohol consumption, although not statistically significant ($p = 0.069$ & 0.071).

Conclusions

Traditional bullying during school years is related to undergraduate students' engagement in cyber bullying, indicating a continuum between secondary education and university. Health risk behaviours are differentially associated with bullying and cyber-bullying.

Key messages

- Bullying during school years is related to undergraduate students' engagement in cyber-bullying, indicating a continuum between bullying and cyber-bullying and secondary education and university
- Health risk behaviours are differentially associated with bullying and cyber-bullying. Interventions targeting cyber-bullying are needed at tertiary education institutes

Disparities in self-rated health among Swedish adolescents with and without impairments 2014

Carina Persson

C Persson, M Lindén-Boström
Department for Sustainable Development, Region Örebro County, Örebro, Sweden
Faculty of Medicine and Health, Örebro University, Örebro, Sweden
Contact: carina.persson@regionorebrolan.se

Background

The Convention on the Rights of Child and the Convention on the Rights of Persons with Disabilities state that all children have the right to the highest attainable standard of health. But this is not the case, health varies between different groups! There is a lack of knowledge about how various impairments are related and how young people are affected by multiple disabilities. The aim of this study is to analyse whether there are differences in self-rated health (SRH) among adolescents with and without various kinds of impairments, taking into account the number and severity of impairments.

Method

A cross-sectional study including all students in grade 7 and 9 in compulsory school and grade 2 in upper secondary school (7399 respondents, response rate 79.7%) in a Swedish county 2014. The students answered a questionnaire anonymously during school hours. SRH, prevalence and severity of impairment (Hearing (H), Visual (V), Motor (M), Dyslexia (D), ADHD/Asperger/Tourette (A) and Other (O)) were assessed. Binary Logistic Regression was used to calculate age and gender adjusted OR for good SRH.

Results

21.9% of all students had one or several impairments. In the impairment group 25.5% had multiple impairments and 22.6% had severe impairments. Compared to adolescents without impairments the impairment group had lower odds for good SRH (OR = 0.39) and especially those with multiple or severe impairments (OR = 0.26; OR = 0.30). There was also differences in good SRH between those without and those with various kinds of impairments (H OR = 0.40, V OR = 0.61, M OR = 0.40, D OR = 0.48, A OR = 0.26, O OR = 0.35).

Conclusions

Good health is less common among adolescents with impairments, particularly those with multiple or severe ones. An especially vulnerable group is adolescents with ADHD/Asperger/Tourette.

Key message

- Everyone involved with the goal health equity, not only those directly involved with the impaired, should be aware of the inequalities in health between those with impairments and those without

What phthalate metabolites are involved in the risk of preterm birth? A review

Cécile Marie

C Marie[1,2], D Lémery[1,2], F Vendittelli[1,2], MP Sauvant-Rochat[2,3]
[1]Centre Hospitalier Universitaire de Clermont-Ferrand, Clermont-Ferrand, France
[2]Clermont Université, Université d'Auvergne, EA 4681, PEPRADE, Clermont-Ferrand, France
[3]Clermont Université, Université d'Auvergne, Faculté de Pharmacie, Clermont-Ferrand, France
Contact: cmarie@chu-clermontferrand.fr

Studies of the effects on pregnancy outcomes of in utero exposure to phthalates, contaminants that are widely present in the environment, have yielded conflicting results. Our review of the literature has establish a current state of knowledge of the phthalates and metabolites involved in preterm birth and change in gestational age at birth. Extant data were analyzed to determine which biomarker is the best suited to assess these associations. A search on the PubMed database was made of studies investigating exposure to phthalates and preterm birth (gestational age <37 weeks) and change in gestational age at birth. The methodological approach of studies were examined, in particular the methods used for exposure assessment (biomarkers and/or questionnaire). Thirteen studies were included. Our review highlights an increased risk of preterm birth. It occurs at a fairly moderate level of exposure. The main metabolites detected and involved were primary metabolites of di-2(ethylhexyl)-phthalate (DEHP) and di-n-butyl-phthalate (DnBP). No clear conclusion could be drawn with regard to gestational age at birth. In epidemiological studies, maternal urine is the most suitable matrix to assess the association between in utero exposure to phthalates and pregnancy outcomes: sampling is easy, non-invasive and can be repeated throughout pregnancy, in contrast to other matrices (cord blood, amniotic fluid and meconium). Oxidative metabolites are the most relevant biomarkers since they are not prone to external contamination. Further epidemiological studies are required during pregnancy to i) specify the pathophysiological pathways; ii) determine the effect of phthalates in other pregnancy outcomes, and iii) specify the role of phthalates or plasticizers other than DEHP, currently replaced by various substitution products (diisononyl-phthalate (DiNP), di(isononyl)-cyclohexane-1,2-dicarboxilic acid (DINCH), tri-octyltrimellitate (TOTM), etc.) for which few data are available.

Key messages

- Primary metabolites of DEHP and DnBP are the most frequently metabolites involved in the risk of preterm birth
- Further studies are required to clarify the role of alternative plasticizers of DEHP (more often banned in many products)

Attention deficit/hyperactivity disorder in children following in utero fever exposure

Julie Werenberg Dreier

JW Dreier[1], AMN Andersen[1], A Hvolby[2], E Garne[3], PK Andersen[4], G Berg-Beckhoff
[1]Institute of Public Health, University of Southern Denmark, Esbjerg, Denmark
[2]Department of Child and Adolescent Psychiatry, Region of Southern Denmark, Esbjerg, Denmark
[3]Paediatric Department, Hospital Lillebaelt, Kolding, Denmark
[4]Department of Biostatistics, University of Copenhagen, Copenhagen, Denmark
Contact: jwdreier@health.sdu.dk

Background

Fever is a very common event during pregnancy, with around 1 in 5 women being affected. Neurodevelopmental impairment has been reported in children following in utero exposure to fever, but no studies have considered attention deficit/hyperactivity disorder (ADHD). Since the fetal brain undergoes a rapid development throughout the pregnancy we wanted to investigate how fever exposure in different gestational periods was related the offspring risk of ADHD.

Methods

The study was conducted within the Danish National Birth Cohort, using data on 89 146 pregnancies enrolled during 1996–2002. Fever exposure was assessed using computer-assisted interviews conducted on approximately gestational weeks 12 and 30. A register-based follow-up in three nationwide patient and prescription registers was used to determine ADHD status, by linkage with the child's civil registration number. Stratified Cox regressions were used to calculate adjusted hazard ratios of ADHD occurrence.

Results

We found that fever in the late part of 1st trimester (gestational weeks 9–12) was associated with a slightly increased rate of ADHD (aHR: 1.33, 95% CI: 1.12–1.58). For the remaining part of the pregnancy fever did not seem to have any strong association with ADHD. A similar pattern was observed when the analyses were restricted to women reporting no use of antipyretic medication, suggesting that the finding was not explained by any potential harmful effects associated with acetaminophen exposure.

Conclusions

The analyses indicate that fever exposure in gestational weeks 9–12 may increase risk of ADHD in the offspring. We did not have any a priori assumption that this specific period of the pregnancy would constitute a critical developmental period for subsequent ADHD occurrence, so further studies needs to clarify whether this in fact is the case.

Key messages

- ADHD occurrence may be associated with in utero fever exposure
- Timing-specific analyses of exposures are important to capture variation in vulnerability across the pregnancy

Socioeconomic differences of educational attainment among young adults. The role of social relations

Trine Nohr Winding

TN Winding, JH Andersen
Danish Ramazzini Centre, Department of Occupational Medicine, Regional Hospital West Jutland, Herning, Denmark
Contact: trwind@rm.dk

Background

School dropout is associated with parental socioeconomic position but to what extent social relations in the family as well as to friends, teachers and classmates are related to educational attainment in young adulthood and if a social gradient is existing is not yet fully understood.

Aim

To elucidate the effect of social factors on the association between parental socioeconomic position and educational attainment of offspring's in a Danish cohort.

Methods

This prospective study used data from questionnaires in 2004 and 2007 and register data in 2004 and 2010. The study population consisted of 3054 persons born in 1989. Information on educational attainment was dichotomised into those who had completed a secondary education/were still attaining one and those who had dropped out/had never attained a secondary education. Logistic regression analyses were used to investigate associations between social relations at age 15 and 18 and educational attainment at age 21, taking into account effects of parental socioeconomic position.

Results

Preliminary results showed that a large proportion of young people were having problems with social relations at age of 15 and 18. In general social relations were strongly related to not completing a secondary education, especially among girls. For instance, 18 year old girls finding family conflicts hard to handle had a 2-fold risk of not completing a secondary education. Young people from low socioeconomic status families had a 3 to 4-fold higher risk of not completing a secondary education compared to young people from high status families, and the estimates did not change considerably after adjustment for social relations.

Conclusion

The study confirms a social gradient in relation to educational attainment. Despite the fact that poor social relations at age 15 and 18 are related to low educational attainment at age 21, social relations only explained a minor part of the socioeconomic differences in educational attainment.

Key messages

- Social relations to family, friends, teachers and classmates are related to educational attainment in young adulthood
- Social relations only explained little of the socioeconomic differences in educational attainment

An environmental scan of child pedestrian injury hotspots in Cluj-Napoca, Romania

Andrada Erika Baragan

E Baragan, D Rus, R Chereches, D Trif
Cluj School of Public Health, College of Political, Administrative and Communication Sciences, Babes-Bolyai University, Cluj-Napoca, Romania,
Contact: erika.baragan@publichealth.ro

Background

Pedestrian children are highly exposed to traffic injuries due to limited development of behavioral skills necessary to be safe on the roads. Every year 10 million children are injured or disabled because of road traffic injuries, many of these resulting from the interaction of modifiable environmental factors. The aim of the study was to determine links between the built environment and child pedestrian injury hotspots.

Methods

A prospective study of child pedestrian injuries was piloted in Cluj-Napoca, Romania. Three-year database (2011–2013) containing casualties of child pedestrian aged 0 to 19 was obtained from the police department. High risk locations for child pedestrian injuries (hotspots) were identified and mapped using Geographic Information System – GIS. Environmental scan was conducted at each hotspot location to examine built-environment risk factors of child pedestrian injuries. Child pedestrian injuries peak hours and other characteristics were also assessed.

Results

The results showed that 297 children were involved in road crashes for the period under study, out of which 96 (32.3%) were pedestrians. 48.9% of pedestrian crashes were caused by jaywalking and 37.5% by drivers prohibiting priority to pedestrians. The analysis highlighted 10 hotspot locations with a total of 27 casualties, out of which 37% were located in intersections. 44.4% children were injured near a school and in 48.1% cases they were injured in areas where road attractions (retail establishment) were present. The majority of children were injured around school hours.

Conclusion

The study identifies child pedestrians' hotspots and built environment associated factors. Future studies should focus on the effectiveness of modifying the built environment to reduce child pedestrian injuries in high-risk areas.

Key messages

- Almost half of the crashes took place in areas near schools or where retail establishments were present
- The results provide support for future prevention strategies on modifying the built environment to reduce child pedestrian injuries in high-risk areas

Prevalence and age at diagnosis of Autism Spectrum Disorder in south Italy, 2004–2014

Maria Fiore

M Ferrante[1], R Barone[2], A Fazio[3], S Zerbo[3], V Margherita[4], R Rizzo[2], G Fichera[3], M Fiore[1]
[1]Environmental and food hygiene laboratory (LIAA). Department 'GF Ingrassia' Hygiene and Public Health, University of Catania, Italy
[2]Department of Clinical and Experimental Medicine, Child Neurology and Psychiatry, University of Catania, Catania, Italy
[3]Structural Department Mental Health, Pathological Addictions, Childhood and Adolescence Neuropsychiatry. Local Health Agency, Catania, Italy
[4]Specialization School of Hygiene and Preventive Medicine. Department 'GF Ingrassia' Hygiene and Public Health, University of Catania, Italy
Contact: mfiore@unict.it

Background

The prevalence of autism spectrum disorders (ASDs) has increased markedly in recent decades. The early diagnosis of children with ASDs is a critical step in gaining access to early intervention, providing optimal opportunity for developmental benefits by taking advantage of early brain plasticity. However, data at the national level are limited. The aim of the study was to estimate the prevalence and age at diagnosis of ASDs in children living in Catania.

Methods

Using the data registered by the Local Healthy Agency from 2004 to 2014, we calculated the prevalence of ASDs for 0–17 year-old children and estimated its trend across two period (2004–2009 to 2010–2014). We examined the age at initial diagnosis in all children diagnosed with ASDs from 2004 to 2014.

Results

From 2004 to 2014, the registered cases 0–17 year-old were 1122 (79,8% boys). The prevalence of ASDs per 10,000 was 4.8 (95%CI = 1,3–11,0) (M = 7.5; 95%CI = 3.1–15.1; F = 2.0; 95%CI = 0.3–8.1). From 2004–2009 to 2010–2014, the identified prevalence of the ASDs per 10,000 showed significant increases (4.5; 95%CI = 1.3–11,0; 5.2 95%CI = 1.8–12). The median (IQR) age at diagnosis of ASDs was currently 4 (3–8) years. From 2004–2009 to 2010–2014, median (IQR) age at diagnosis decreased from 5 (3–9) to 4 (3–7). A significant higher median age at diagnosis was observed in rural area than in urban area (7vs5 years; $p < 0,001$)

Conclusions

Our findings reflect the official prevalence for registered ASDs, however we foresee that it might be higher in our country. There was a substantial gap between the age at which an accurate diagnosis of ASDs is possible and the average age that children are currently diagnosed. Early detection and treatment are two of the most important factors optimizing outcome. Moreover, diagnosis is typically a necessary condition for families to have access to early treatment so reducing age of diagnosis has become one of the greatest priorities of the field.

Key messages

- Autism spectrum disorders can be ameliorated through intensive early targeted autism-specific services
- Actually children are identified at a later age and are not able to access early interventions promptly

Impact of childhood conditions on young adults' educational achievement- 1987 Finnish Birth Cohort

Mika Gissler

M Gissler[1], A Lappi[2], T Ristikari[2], M Merikukka[2], L Törmäkangas[2]
[1]National Institute for Health and Welfare. The Department of Information Services. The Statistics and Registers Unit. Helsinki, Finland
[2]National Institute for Health and Welfare. The Department of Welfare. The Children, Adolescents and Families Unit. Oulu, Finland
Contact: tiina.ristikari@thl.fi

Background

Well-being in later life is strongly founded in childhood. The long-term aim of the Finnish education policy is to provide equal educational opportunities to all citizens regardless of their social background or home municipality. Education is closely tied to a person's health and well-being, as well as financial circumstances in adulthood. The 1987 Finnish birth cohort study has thus far shown that problems in well-being are closely connected to lack of secondary level education and mental health- and financial problems tend to accumulate particularly to those without secondary level education. The aim of this study is to find out how early-life conditions affect a child's later school performance and attainment of degrees. This study aims to identify which factors predict success in the attainment of secondary level degrees, and what are the relevant risk factors for discontinued educational pathways.

Methods

The 1987 Finnish Birth Cohort –study follows all, approximately 60 000, persons born in Finland in 1987, from the prenatal period through the year 2012. By combining data from different registers on the socioeconomic and health status of the parents of the cohort members to the information on the degrees that the cohort members have received, logistic regressions are used to identify the salient risk factors for attaining degrees.

Results

The preliminary results show that adverse childhood conditions cause a significant impact on the cohort member's educational achievements. Particularly parent's lack of education, financial difficulties and smoking during pregnancy are the main risk factors for children's lacking degree education.

Conclusions

The prevention of intergenerational transmission of welfare problems needs to consider the impact of early life conditions on the attainment of further education.

Key messages

- The educational attainment is significantly impacted by childhood conditions
- The prevention of intergenerational transmission of welfare problems needs to consider the impact of early life conditions on the attainment of further education

Knowledge development of improved collaboration between professional in social work

Charli Eriksson

C Eriksson, L Beckman, I Aurin Edvardsson, J Jensen, A Larsson, K Meijer
Faculty of Medicine and Health, School of Health and Medical Sciences, Örebro, Sweden
Contact: charli.eriksson@oru.se

Issue/problem

Children cannot choose their family therefore it necessary that the can be protected from neglect and hazardous living conditions. A national survey of all adults in dependency treatment during one week in September 2012 found that only 24 % of children living in such risk families got any type of support. Therefor the government assigned the Swedish Association of Local Authorities and Regions to initiate a developmental program targeting children and parents in families with dependency.

Problem

The challenge is to collaborate between different sectors of the health and welfare sectors. During 2013 and 2014 a national team promoted a better integration of a child and dependence services in the social work in the Swedish municipalities by organizing an implementation structure at the county level, which supported the municipalities in the planning and implementation of locally developed interventions aimed at improving the support to parents and children in risk situations. This innovative program was studied by participatory case studies in 15 counties and 40 municipalities.

Results

The national team successfully developed a participatory developmental process including continuing education program and support structure. At the county level a team of professional representing development effort for children and dependency issues cooperated in support the municipalities in their local plans, which included competence development, development of guidelines and cooperation in families in need.

Lessons

A development process need leadership, clear mandates, time and support the monitoring and systematic knowledge. The aim is to promote long-term change and not projects. The social service is on-going, but the clients are projects that should be completed. Important aspects of the development process are the mission, structural conditions, personal circumstances, professional development, experience of collaboration, sustainable processes and wanting but not able to.

Key messages

- National initiatives need an implementation structure that focus of real changes and sustainability
- Shortcomings in the working environment, staff turnover and workload are conditions that contribute to the municipalities are not participating at all in collaborative projects

Asthma-like symptoms in homeless children in the Greater Paris area in 2013

Stéphanie Vandentorren

D Lefeuvre[1,2], MC Delmas[3], C Marguet[4], P Chauvin[1,2], S Vandentorre[1,2,5]
[1]INSERM, UMR_S 1136, Pierre Louis Institute of Epidemiology and Public Health, Department of social epidemiology, F-75012, Paris, France
[2]Sorbonne Universities, UPMC Univ Paris 06, UMR_S 1136, F-75012, Paris, France
[3]French Institute for Public Health Surveillance, F-9410 Saint-Maurice, France
[4]University hospital of Rouen, F-76000 Rouen, France
[5]Observatoire du Samusocial de Paris, F-75012 Paris, France
Contact: Stephanie.Vandentorren@ars.sante.fr

Background

Asthma remains poorly studied in homeless children. Our objectives were to estimate the prevalence of asthma-like symptoms (ALS) and to identify the factors associated with ALS and healthcare access for children with ALS.

Methods

A cross-sectional survey on a random sample of sheltered homeless families in Paris area (the ENFAMS survey) was conducted in 2013 in 17 languages: 801 parents of children (0–12 years) were questioned about demographics, socioeconomics and environmental conditions, health and healthcare access. Prevalence of ALS was defined as the presence of wheeze or night cough without fever over the last year. Poisson regression models with a robust error variance were used to compute prevalence ratios (PR) for factors associated with ALS and healthcare access for ALS.

Results

Prevalence of ALS was 19.9% in children aged 0–12 years. Poor hygiene housing was significantly associated with ALS (PR = 1.54 [1.10–2.16]), as well as being born in the European Union. Dampness was on the border of statistical significance (PR = 1.46 [0.98–2.16]). Most children with ALS used healthcare services: 57.8% consulted a family doctor, 32.9% went to an emergency department and 32.1% were hospitalized. Principal barriers to healthcare access were: living in France for less than 49 months, having difficulties in French and living in poor housing conditions (respective PR: 0.84 [0.74–0.96], 0.87 [0.76–0.99], 0.80 [0.67–0.96]).

Conclusion

Possibly due to different children origins, ALS prevalence in homeless children is of the same order of magnitude as that in the general population. Environmental factors associated with ALS indicate the need to improve family shelters' indoor environment. High rates of emergency department use and hospitalizations show that ALS care may be improved in this vulnerable children population.

Key messages

- Environmental factors associated with ALS, such as dampness and poor hygiene housing, indicate the need to improve family shelters' indoor environment to limit asthma triggers
- High rates of emergency department use and hospitalizations show that ALS care may be improved in this vulnerable children population

Are all types of violence the same among French Students?

Laurent Gerbaud

L Gerbaud[1,2], J Hazart[1], M Blanquet[2], A Debost-Legrand[2], A Perrève[1], S Léger[2,3], S Maurice[4], Pr[1,2], ADSSU working group
[1]service de Santé Universitaire, Clermont-Ferrand, France
[2]service de santé publique, EA 4681 PEPRADE, CHU Clermont-Ferrand, Université d'Auvergne, Clermont-Ferrand, France
[3]Laboratoire de Mathématiques, UMR CNRS 6620 Université Blaise Pascal, Clermont-Ferrand, France
[4]ISPED Université de Bordeaux, Bordeaux, France
Contact: lgerbaud@chu-clermontferrand.fr

Background

In France, there are many reports showing high level of violence among young people. To reach more impressive rates of violence, most of them mixed physical, psychological and sexual assaults as welle as being victim or author. In a national cross sectional study among French students, we explored the different types of violence in order to find if it is one phenomenon with diverse expressions or not.

Methods

In 20 university centers, students were asked by an email to fill in an anonymous internet questionnaire about their habits, way of life and addiction between February and May 2013. 20 items explored the different kinds of violence, being victim or author, and violence associated to alcohol or drunkenness. Logistic regressions were done to identify risk factors associated with each type of violence.

Results

36427 students filled in the whole questionnaire. 20,2% (7358) declared being victim of psychological violence, 12.9% (4699) for psychological and 4,5% (1639) for sexual. 52,9% (19270) were responsible of violence, 37,7% (13733) against others, 31,6% (11511) against himself and 20,7% (7540) against material objects. Profiles of violence vary considerably. For instance physical violence is related to men, alcohol use, lowest emotional well-being and being also author of this violence. Sexual violence is uncommon and more frequent among women (6,2% vs 1,6% among men) and is also related to alcohol. 31,7% of drinkers were exposed to violent scene at least one time when they were drunk.

Conclusion

Physical, psychological and sexual violence do not have the same risks factors and the same consequences, and need different policies. Mixing them in one concept is confusing and may avoid building efficient prevention policies. The role of alcohol consumption is particular and need specific focuses.

Key messages

- Physical, psychological and sexual violence have different risk factors and need different prevention policies
- alcohol use is frequently linked to physical violence, as victim as well as author for men, more rarely to sexual violence among women

Problematic gambling in deaf and hearing-impaired young people in Sweden

Karin Fröding

K Fröding, S Geidne, M Larsson
Faculty of Medicine and Health, School of Health and Medical Sciences, Örebro, Sweden
Contact: karin.froding@oru.se

Background

Problematic gambling is a public health problem. Deaf and hearing-impaired young people are a high-risk group regarding health and lifestyles. There are indications that young people with disabilities gamble to a greater extent than adolescents without disabilities. Whether this applies specifically to the group deaf and hearing-impaired adolescents is a knowledge gap. This pilot study aims to investigate the prevalence and type of gambling problems in deaf students (16–19 years old) and to identify the group's risk and protective factors for problematic gambling.

Methods

Data from the study Life & Health -Young People conducted in Örebro County, Sweden 2014 was used. This is a total, cross-sectional survey of young people's living conditions, lifestyles and health. Students in grade 2 (17–18 years old) in upper secondary school were included in this study (n = 2468, 75% response rate). A systematic search has also been conducted.

Results

A systematic search of the literature of problem gambling in the hard-of-hearing group reveals that this is an un-researched area. This could be one of the first studies researching gambling problems in this particular target group. Around 17% of the total sample has gambled for money several times a month. Almost 8 % of this sample has some type of hard-of-hearing. The first results indicate that the hard-of-hearing group is gambling for money to a higher extent than normal hearing students.

Conclusions

There is a need to increase knowledge about gambling and problematic gambling in deaf and hearing-impaired adolescents. Knowledge about gambling in this target group will lay the foundation for the development of methods to counteract gambling problems which could improve the health within this high-risk group.

Key messages

- There is a lack of research on problem gambling in the hard-of-hearing group
- There are indications that the hard-of-hearing group gambles for money to a higher extent than others young people

Characteristics of using traditional Chinese medicine for pediatric dislocations, sprains and strains

Chung-Yen Lu

CY Lu[1,2], FC Sung[3], TT Chang[1,4], KW Lu[1,4], PC Chen[5]
[1]School of Post Baccalaureate Chinese Medicine, China Medical University, China
[2]Chinese Medical Department, Tri-service General Hospital, Cina
[3]Institute of Clinical Medical Science, China Medical University,China
[4]Department of Chinese Medicine, China Medical University Hospital, China
[5]Clinical Informatics and Medical Statistics Research Center, Chang Gung University,China
Contact: u100030082@cmu.edu.tw

Background and objectives

Dislocations, sprains and strains are common childhood musculoskeletal injuries, requiring medical attentions. We investigated characteristics associated with using Traditional Chinese medicine (TCM) for children suffering from these injuries.

Methods

From a nationwide representative insurance database of Taiwan, this cross-sectional study identified 50,769 children with dislocations, sprains and strains under 18 years of age, newly diagnosed between 1999 and 2009, without previous TCM experience. Children who initiated treatment with TCM (n = 24,063, 47.4%) were defined as TCM users, others were in the non-TCM group. Multivariable logistic regression models estimated odds ratios (ORs) of TCM use.

Results

Girls and children living in central Taiwan (vs. northern) were associated with higher TCM use. The adjusted ORs (95% confidence interval [CI]) of TCM uses were 1.60 (1.42–1.79) for patients of 3–5 years, 2.20 (1.99–2.42) of 6–12 years, and 1.82 (1.64–2.01) of 13–17 years, compared with those of <2 years group. TCM users were less likely to have outpatient visits for Western medicine care and hospitalizations in the previous year. The TCM group was near twice more likely than the non-user group to receive treatments at local clinics (99.1% vs. 53.3%, $p < 0.001$).

Conclusions

This study reveals important demographic and medical factors associated with TCM uses for children with dislocations, sprains and strains. Local clinics are the main health care facilities providing TCM services. Further studies are needed to evaluate outcomes of TCM treatment for these musculoskeletal injuries.

Key message

- In Taiwan, near half of children suffering from dislocations, sprains and strains seek TCM to initiate their musculoskeletal injuries treatment, mainly at local clinics with TCM services

Evaluation of the effectiveness of Health in Pregnancy grants in Scotland, 2009–2011

Alastair Leyland

AH Leyland[1], S Ouédraogo[1], R Gray[2], L Bond[3], AH Briggs[4], R Wood[5], R Dundas[1]
[1]MRC/CSO Social and Public Health Sciences Unit, University of Glasgow, Glasgow, Scotland
[2]National Perinatal Epidemiology Unit, University of Oxford, Oxford, UK
[3]Centre of Excellence in Intervention and Prevention Science, Melbourne, Australia
[4]Health Economics and Health Technology Assessment, University of Glasgow, Glasgow, Scotland
[5]Information Services Division, NHS National Services Scotland, Edinburgh, Scotland
Contact: alastair.leyland@glasgow.ac.uk

Background

Low birthweight is associated with impaired development; the developmental model of the origins of chronic disease proposes that undernutrition in utero causes later disease. The importance of a healthy pregnancy for development means that interventions at this stage may have impact on health and health inequalities in later life. We have evaluated the effect of Health in Pregnancy grants in Scotland, an unconditional universal cash transfer of £190 (€215) made to pregnant women who had sought medical advice before the 25th week of pregnancy.

Methods

This natural experiment was evaluated using routinely collected data for all singleton births in Scotland before (2004–2009), during (2009–2011) and after (2011–2013) the intervention. In addition to the primary outcome of birthweight (BW) we evaluated the effect on weight-for-dates (WFD), contacting the midwife before 25 weeks (M25) and smoking during pregnancy (SP). We used interrupted time series models adjusted for time trends and seasonality in addition to maternal and birth characteristics to estimate the effect of the intervention (INT) and post-intervention (POST) periods relative to the years pre-intervention.

Results

Among the 527,373 births from 2004–2013 there was no significant relationship with BW (INT = 1.4 g, 95%CI −2.6 to 5.3) or WFD (INT = 0.00SD, 95%CI −0.01 to 0.01). The intervention was associated with an increase in M25 that was maintained post-intervention (INT OR = 1.39, 95%CI 1.31 to 1.47; POST OR = 1.48, 95%CI 1.40–1.56) and a decrease in SP (INT OR = 0.81, 95%CI 0.78 to 0.83).

Conclusions

The small financial incentive was associated with earlier contact with services and, possibly as a result of the advice received, lower rates of smoking during pregnancy. These behaviour changes did not, however, impact on birthweight. Questions remain concerning the optimal timing of the intervention and the ability to separate macro-level effects (e.g. recession) in a non-experimental setting.

Key messages

- An unconditional and universal cash transfer was made to women who sought medical advice by the 25th week of pregnancy
- There was no impact on birthweight but following the intervention more women booked before 25 weeks and fewer smoked during pregnancy

4.W.K. Poster walk: Chronic and non-communicable diseases

Systematic versus opportunistic risk assessment for primary prevention of cardiovascular disease

Mariana Dyakova

M Dyakova[1], S Shantikumar[1], JL Colquitt[2], A Clarke[1], K Rees[1]
[1]Division of Health Sciences, Warwick Medical School, University of Warwick, Coventry, UK
[2]Effective Evidence LLP, Eastleigh, UK
Contact: m.dyakova@warwick.ac.uk

Background

Cardiovascular disease (CVD) is still number one cause of early death and disability worldwide. Systematic identification of those at high risk of CVD may help prevention and management. There is currently not enough evidence showing clear benefits of ’screening’ over the widely practised opportunistic risk assessment (RA) of CVD. This Cochrane systematic review aims to fill this gap.

Methods

Databases searched: Cochrane Library; MEDLINE; EMBASE; Web of Science Core Collection with no language restrictions. Randomised controlled trials (RCTs) were selected assessing the effects of systematic RA (screening-like programmes) compared with opportunistic RA (ranging from no RA to incentivised case finding) on CVD and its risk factors. Participants: healthy adults and those at high CVD risk.

Results

Eight completed RCTs met the inclusion criteria, with more than 150,000 people and more than 8,000 recorded deaths. There was high heterogeneity in terms of participants, interventions and duration of follow-up. Limited data available for all end-points suggests screening has no statistically significant effect on all-cause and cardiovascular mortality; on total and non-fatal coronary heart disease; and on non-fatal stroke. Overall, CVD screening appears to result in small reduction in total cholesterol levels and small decrease in systolic and diastolic blood pressure. These results should be viewed with caution due to statistical heterogeneity and high/uncertain risk of bias in all studies. Lacking/inconsistent reporting limits the evidence for cost/cost-effectiveness, attendance rates, acceptability, follow-up rates and adverse effects. Four ongoing studies were identified.

Conclusions

Only eight trials met the inclusion criteria despite extensive searching. Existing data suggests systematic RA has no statistically significant effect on clinical endpoints. There is limited evidence to suggest that systematic RA may have small favourable effect on some CVD risk factors.

Key messages

- There is currently limited evidence on the effects of systematic risk assessment (screening) for the primary prevention of cardiovascular diseases. The four ongoing RCTs will add to the existing data
- Policy and commissioning decisions about implementing population level screening-like programmes for CVD should be informed by good evidence for effectiveness and cost-effectiveness

Usefulness of LDL-C to HDL-C ratio in assessing risk of cardiovascular diseases: The Suita study

Misa Takegami

M Takegami[1], M Watanabe[2], A Higashiyama[1], Y Tatsumi[1], M Nakai[1], YM Nakao[1], K Nishimura[1], Y Kokubo[1], Y Miyamoto[2]
[1]Department of Preventive Medicine and Epidemiologic Informatics, National Cerebral and Cardiovascular Center, Suita, Osaka, Japan
[2]Department of Preventive Cardiology, National Cerebral and Cardiovascular Center, Suita, Osaka, Japan
Contact: takegami@ncvc.go.jp

Objective

The impact of Low-density lipoprotein cholesterol (LDL-C) to high-density lipoprotein cholesterol (HDL-C) ratio on the incidence of cardiovascular diseases remains unknown in Asian populations, such as Japan. We examined the association of the LDL-C/HDL-C ratio and the incidence of cardiovascular diseases.

Methods

Present study included a total of 5152 men and women aged 30–79 year without a history of cardiovascular diseases, selected randomly from an urban general population in Japan. Baseline LDL-C levels were estimated using the Friedewald formula. The Cox proportional hazards model was used to estimate hazard ratios (HRs) of LDL-C/HDL-C ratio categories grouped by quartile for incident ischemic heart disease and cerebral infarction, adjusted by age, body mass index, hypertension, diabetes, smoking and drinking.

Results

During a mean follow-up of 13.0 years, there were 166 cases of ischemic heart disease and 127 cases of cerebral infarction. Compared with the lowest LDL-C/HDL-C ratio group, the multivariate-adjusted hazard ratios (95% confidential interval) for ischemic heart disease in the highest LDL-C/HDL-C ratio group in male and female was 2.0 (1.2 – 3.4) and 1.2 (0.5–2.7), respectively. In addition, analysis of trends showed a significant positive relationship between ischemic heart disease and LDL-C/HDL-C ratio ($p = 0.013$) among male with LDL-C less than 160. The risk of cerebral infarction was not significantly increased after adjustment for other cardiovascular risk factors.

Conclusion

LDL-C/HDL-C ratio may be an important target for the prevention of cardiovascular disease among male in Japan.

Key messages

- LDL-C/HDL-C ratio was significantly associated with the incidence of ischemic heart disease in male
- LDL-C/HDL-C ratio may be an important target for the prevention of cardiovascular disease among male in Asian population

Carotid Atherosclerosis Progression and Risk of Cardiovascular Events in a Community in Taiwan

Pei-Chun Chen

PC Chen[1], KL Chien[2], TC Su[3], JS Jeng[4], HC Hsu[3], YT Lee[3]
[1]Clinical Informatics and Medical Statistics Research Center, Chang Gung University, Tao-Yuan, Taiwan
[2]Institute of Epidemiology and Preventive Medicine, National Taiwan University, Taipei, Taiwan
[3]Department of Internal Medicine, National Taiwan University Hospital, Taipei, Taiwan
[4]Department of Neurology, National Taiwan University Hospital, Taipei, Taiwan
Contact: eliz0118@gmail.com

Background

Carotid intima-media thickness (IMT) and plaque are strongly associated with risk of developing cardiovascular disease, but whether progression of IMT and plaque are related to the risk remains unproven. We investigated the association between carotid atherosclerosis progression and subsequent cardiovascular risk in a community in Taiwan, where people are predominantly ethnic Chinese. Data in this population has rarely been reported.

Methods

Study subjects were 1398 participants of the Chin-Shan Community Cardiovascular Cohort Study who were free of cardiovascular disease and underwent ultrasound examinations for common carotid artery IMT and extracranial carotid artery plaques at both 1994–1995 and 1999–2000 surveys. We determined change in IMT using differences between the two surveys and measured new plaque formation in subjects without plaque in the first survey. Cox proportional hazards model was used to assess the risk of incident cardiovascular disease from 1999–2000 survey to 2013.

Results

During a median follow-up of 13 years, 71 strokes and 68 coronary heart diseases occurred. Individual IMT change was not associated with the risk of cardiovascular events in unadjusted and adjusted models. We observed elevated risk associated with formation of new plaque in the univariable model, and the risk increased as plaque score increased. The crude hazard ratio for plaque score $> = 2$ as compared with no plaque was 3.35 for stroke (95% confidence interval $[CI] = 1.92–5.86$) and 2.27 for coronary heart disease (95% $CI = 1.17–4.39$). The association weakened appreciably after adjustments for cardiovascular risk factors (adjusted hazard ratios, stroke, 1.66 [$p = 0.11$], heart disease, 1.72 [$p = 0.32$]).

Conclusions

Formation of carotid plaque is a marker of subsequent cardiovascular events, and the association is partly explained by cardiovascular risk factors. Plaque progression could be a surrogate of cardiovascular risk for assessment of health interventions.

Key message

- Carotid atherosclerosis progression, measured by plaque formation but not IMT change, is an indicator of future cardiovascular events and reflects underlying cardiovascular risks

The association of hypertension with periodontitis in Korean females; results from the KNHANES IV

Yoo-Been Ahn

YB Ahn[1], MS Shin[1], HD Kim[1,2]
[1]Department of Preventive and Social Dentistry, School of Dentistry, Seoul National University, Seoul, South Korea
[2]Dental Research Institute, School of Dentistry, Seoul National University, Seoul, South Korea
Contact: ahnyo037@snu.ac.kr

Aim

To evaluate the association of hypertension and high systolic and diastolic blood pressure (SBP and DBP) with periodontitis in a nationally representative Korean adult population.

Materials and Methods

Total of 14,625 participants of KNHANES IV aged over 19 years were cross-sectionally surveyed. Periodontitis was defined as CPI score of 3 or 4. Hypertension was categorized as: normotensive ($SBP < 120$ mmHg and $DBP < 80$ mmHg), prehypertensive ($120 < SBP < 140$ mmHg or $80 < DBP < 90$ mmHg) and hypertensive ($SBP \geq 140$ mmHg or DBP ≥ 90 mmHg or taking antihypertensive medication). Multivariate Poisson regression analyses were performed controlling for age, sex, household income, drinking, smoking, physical activity, obesity, hypercholesterolemia and diabetes mellitus. Stratified analyses were performed to identify specific risk groups.

Results

Hypertension showed a significant positive association with periodontitis in the fully-adjusted model in female adults with a dose-response relationship. This association was highlighted in females aged 30–59 years (prevalence ratio $[PR] = 1.25$; 95% confidence interval [CI]: 1.11–1.40). The strength of the association was highest in females aged 30–39 years and decreased with increasing age. Moreover, the association was modified by income for females in 30 s, physical activity and obesity for females in 40 s and alcohol drinking for females in 50 s.

Conclusion

Our data showed that hypertension was independently associated with periodontitis in Korean female adults.

Key messages

- Hypertension was associated with periodontitis in Korean female adults
- Further research is indicated to elucidate the role of high blood pressure in inducing periodontal disease

Use of implantable cardioverter defibrillator therapy in Lombardy from 2005 to 2010

Fabiana Madotto

F Madotto, C Fornari, V Chiodini, LG Mantovani, S Conti, G Cesana
Research Centre on Public Health, University of Milano-Bicocca, Monza, Italy
Contact: fabiana.madotto@unimib.it

Background

The implantable cardioverter defibrillator (ICD) detects and treats life-threatening ventricular arrhythmias in subjects with left ventricular systolic dysfunctions or heart failure. Given the high burden of these diseases and the costs related to ICD therapy, monitoring its real utilization is relevant. The purpose of the study was to evaluate the use of ICD during 2005–2010 in Lombardy, the most populous Italian region with universal healthcare coverage for about 10 million inhabitants.

Methods

Data were extracted both from the ICD National registry and from the data warehouse DENALI that collects healthcare administrative databases concerning all subjects covered by health system. Linking these data sources, we developed and validated (with Cohen's kappa coefficient) an algorithm to distinguish hospitalizations for ICD into first implants and replacements in order to estimate the annual standardized rates of first implant (per million person-years) and replacement (per hundred person-years).

Results

We found a match in the National registry for 21,753 (86%) of 25,358 hospitalizations for ICD implants gathered in DENALI. The algorithm identified 17,492 hospitalizations as "first ICD" and 7,866 hospitalization as "device replacement". From 2005, the Cohen's kappa coefficient showed values over 0.8. In the study period, the annual rates were 232.5 (95%CI: 228.5–236.4) and 10.5 (95%CI: 10.2–10.8) for first ICD and replacement respectively. We found a slight increase in the rate of first ICD from 2005 to 2010 and a stable trend in the device replacement, with a peak in 2005.

Conclusions

As compared to the European situation, in Italy and especially in Lombardy region, ICD therapy is more widely used in medical practice. The combined use of information gathered in National registry and healthcare administrative data could overcome the limitation of both data sources and improve the monitoring of ICD therapy.

Key messages

- The integration between information stored in healthcare administrative databases and clinical registry is useful to monitor ICD technology
- ICD use is growing and varying among countries: we need to assess its efficacy and burden

Changing patterns of statin use following media coverage of statin side effects

Margit Kriegbaum

M Kriegbaum
Department of Public Health, LIFESTAT UCPH Excellence Programme, Centre for Healthy Aging, University of Copenhagen, Denmakr
Contact: makr@sund.ku.dk

Background

Statins are prescribed to an increasing part of the Danish population during the past 15 years and the indication for use has been widened. However, the benefits and harms of statins as a risk-reducing drug are discussed among researchers, general practitioners, policy makers and the general population. Mass media play an important role in setting the agenda for which topics are discussed in the general population. In Denmark the national newspaper BT reported adverse effects of statins (23rd of July 2008) in a strongly negatively framed article. This led to an increase in adverse drug reporting registered by Danish health authorities. It is, however, unknown to which extend the negative media attention influenced adherence with statins.

Methods

The study design was a quasi-experimental study, which compared adherence in 2007 and 2008. Information on statin use was retrieved from The Danish National Prescription Registry and information on age and sex was available from national registers. Two study cohorts were created. Study cohort one consisted of all Danish residents aged 40 years or older with at least one statin purchase between January and June 2007 (n = 366,023). Study cohort two consisted of the equivalent population in 2008 (n = 430,713). The outcome was defined as the proportion with at least one statin purchase in August to December 2007 for study cohort one and August to December 2008 for study cohort two.

Results

In 2007, 91.3 % (95 % CI 91.2–91.4) of the statin users had at least one additional statin purchase in the months August to December that year. The corresponding number in 2008 was 88.1 % (95 % CI 88.0–88.2). Results were similar in men and women and found in different age groups. However, the difference between 2007 and 2008 was largest in the younger age groups.

Conclusions

Compared to the year before, there was a lower adherence after negative media report of statin side effects. However, causal relations cannot be concluded from this type of study. More elaborate studies on the subject is planned and will focus on differences according to status of cardiovascular disease and socioeconomic groups, which has the potential to contribute to knowledge about which groups in the population are more likely to respond to mass media report on adverse effects of statins.

Key messages

- Framing of health related news shape health behaviours
- Mass media reports may influence statin adherence

The HAPIEE study – Does the ideal cardiovascular health exist?

Michala Lustigova

M Lustigova[1,2], D Dzurova[1], M Bobak[3], R Kubinova[2]
[1]Faculty of Sciency, Charles University in Prague, the Czech Republic
[2]National Institute of Public Health, Prague, the Czech Republic
[3]University College London, UK
Contact: michala.lustigova@natur.cuni.cz

Background

Cardiovascular epidemiology places increasing emphasis on achieving the ideal cardiovascular health (ICH), which includes not only elimination of risk factors at the level of an individual and of a population, but focuses on mainly active strengthening of health over the life-course and achieving optimum values of factors benefiting to health.

Methods

Data from the Czech part of the prospective population-based HAPIEE (Health, Alcohol, and Psychosocial factors in Eastern Europe) study were used. The baseline survey (2002–2005) in the Czech Republic included 8855 individuals aged 45–69 years. Deaths in the cohort were identified through mortality register. Distribution of ICH among the Czech population was assessed using optimal values for seven CVD characteristics (optimal values of high blood pressure, cholesterol and BMI, non-smoker, absence of 2DM, absence of CVD and sufficient physical activity). The positive impact of ICH on cardiovascular mortality was analysed by Cox regression, and population attributable fraction (PAF%) were estimated.

Results

In the Czech population of middle and older persons, only a small fraction, about 1.6 %, can be considered to have ICH. The crude risk of fatal cardiovascular event was 11 times (HR = 11.38, 95% CI 5.64–22.94) higher among persons without any optimum-value factor compared to persons with at least five optimum monitored determinants (out of seven). After controlling for age, sex and education the risk remain significantly elevated (HR = 4.12, 95% CI 2.02–8.38).

Achieving optimum values of risk factors in the population would prevent from more than one half of deaths from CVD (PAF% = 55).

Conclusion

There are significant opportunities in improving cardiovascular health in the Czech population, mainly by changes of the life-style. Achieving ideal cardiovascular health would prevent over one half of CVD deaths.

Key message

- In addition to the elimination of a cardiovascular risk factors, it is important to achieve optimum life styles to improve cardiovascular health of the population

Prevalence of dyslipidemia: Assessing differences in the Portuguese central health region

Andreia Cabete Portulez

A Cabete Portulez, E Cordeiro
Department of Public Health, Central Region Health Administration, Coimbra, Portugal
Contact: andreiaportulez@gmail.com

Background

Availability of quality information is useful for monitoring population health-status, planning and evaluating healthcare. Morbidity indicators, based on aggregated data from health information systems (HIS), provide information about disease prevalence. This study aims to determine the prevalence of dyslipidemia and to assess data quality for diagnosis coding.

Methods

Prevalence of the disease was calculated as the proportion of male patients over 39 years and female patients over 50 years registered with a diagnostic code, according to the International Classification of Primary Care (ICPC-2), in health centers of the Portuguese central health region, in December 2013/January 2014. The proportion of patients with an unknown disease status, due to out of date information or missing data, was computed. Data quality was assessed using quantitative attributes, defined by the Centers for Disease Control and Prevention to evaluate public health surveillance systems. Compliance of the clinical criteria, defined in national guidance issued by the Portuguese Directorate-General of Health, with an ICPC-2 registered diagnostic code, was measured.

Results

Prevalence of dyslipidemia among 656,455 registered patients was 36% (range 25–42%). Disease status was unknown in 41% of patients (range 39–51%). Representativeness of the registered patients with medical appointments was over 88%. HIS completeness for serum lipid profile registry ranged from 37 to 65% (n = 600,153). Sensitivity for ICPC-2 coding among patients with clinical criteria varied between 49 and 67% (n = 331,063).

Conclusions

Higher completeness and sensitivity of the HIS showed higher prevalence of the disease, highlighting differences in prevalence, according to differences in data quality. The proportion of patients with an unknown disease status was unexpectedly high. Suggested data validation rules and HIS alerts for data completeness and coding could lead to improved quality.

Key messages

- Identification of problems concerning data quality of diagnosis coding
- Suggestion of measures, including data validation rules and alerts for completeness and coding, to improve data quality

‘Associations of respiratory symptoms with serum cotinine as a marker of smoking’

Natalya Kovalkova

N Kovalkova, D Denisova
Federal State Budgetary Scientific Institution, ‘‘Institute of Internal and Preventive medicine’’, Novosibirsk, Russia
Contact: terap2000@yandex.ru

Background

Tobacco smoking is currently the most common and important risk factor for respiratory diseases. To distinguish smokers from non-smokers serum cotinine, a metabolite of nicotine, is used in epidemiological studies as a marker of smoking. The purpose of the study was to identify associations of respiratory symptoms with serum cotinine levels in persons.

Methods

To detect respiratory symptoms in a cross-sectional population survey in Novosibirsk (Western Siberia) the questionnaire for respiratory diseases (WHO and ECRHS), was used. 545 people 25–45 years old were examined in 2014–2015. Serum cotinine levels were investigated in a random subsample of 182 persons by enzyme method.

Results

The prevalence of cough more than 3 months per year was 22.0%, sputum −25.0%, wheezing −22.6%, asthma attacks −5.3%, coughing/wheezing inhalation of cold air −14.9%. Median serum cotinine was significantly higher (Mann-Whitney test) in patients with complaints of cough for more than 3 months per year ($p = 0.001$), sputum ($p = 0.003$), wheezing ($p = 0.002$) compared with those without symptoms. In patients with levels of serum cotinine more than 3 ng/ml determined a high probability of cough for more than 3 months per year (OR = 3.090; 95% CI 1,321–7,228; $p = 0.007$), sputum (OR = 2.343; 95% CI 1,186–4,636; $p = 0.013$), wheezing (OR = 2.998; 95% CI 1,496–6,008; $p = 0.002$) compared with those who had cotinine serum less than 3 ng/ml.

Conclusions

Associations of respiratory symptoms with serum cotinine confirm the fact of greater prevalence of respiratory diseases, including chronic bronchitis, COPD, asthma, among smokers. The usefulness of serum cotinine above 3 ng/ml as a marker of smoking was confirmed.

Key messages

- The results of cross-sectional study in Novosibirsk have confirmed the need for detection of serum cotinine above 3 ng/ml as a marker of smoking in patients with respiratory diseases
- The prevalence of cough was 22%, sputum-25.0%, wheezing-22.6%, asthma attacks-5.3%, coughing/wheezing inhalation of cold air-14.9%, when in contact with animals, plants, chemicals-16.5%

Epidemiology and clinical course of idiopathic pulmonary fibrosis in Northern Italy, in 2005–2010

Sara Conti

S Conti[1], F Madotto[1], A Caminati[2], G Cesana[1], S Harari[2]
[1]Research Centre on Public Health, University of Milano-Bicocca, Monza, Italy
[2]Department of Pneumology and Semi-intensive Respiratory Care, ‘‘San Giuseppe’’ Hospital-Multimedica, Milano, Italy
Contact: sara.conti@unimib.it

Background

Idiopathic pulmonary fibrosis (IPF) is the most common and severe form of idiopathic interstitial pneumonia. IPF is a rare disease and, despite its clinical relevance, studies regarding its epidemiology are sparse, and they usually focused on selected populations with heterogeneous results.

This study aimed at describing incidence, prevalence and clinical course of IPF in the whole population (about 10 million inhabitants) of Lombardy (Northern Italy), during 2005–2010.

Methods

We searched healthcare administrative databases of Lombardy Health System (HS), and we identified incident and prevalent cases of IPF from 2005 to 2010: based on diagnoses reported in inpatient and outpatient claims, we selected potential IPF cases from 2000 to 2010; we then applied a 5-years washout period. From the same databases, we extracted incident cases’ vital status and hospitalizations from the first IPF diagnosis to 31st December 2010.

We estimated age- and gender-standardized prevalence and incidence rates, and we computed Kaplan-Meier estimators of the mean time to death and to first hospitalization.

Results

Estimated mean annual incidence and prevalence rates (×100,000 person-years) were respectively 3.7 (95%CI:3.6–3.9) and 22.4 (95%CI:22.0–22.8). Rates were higher among men and increased with age. Prevalence showed a positive temporal trend, incidence remained stable.

During follow-up, 39.4% of patients died and 64.0% were hospitalized. Estimated mean time to death and to the first hospitalization were 3.7 (95%CI:3.5–3.8) and 1.7 (95%CI:1.6–1.8) years, respectively.

Conclusions

Since Italian HS is universal, our data source provided us with one of the largest sample of patients ever considered, without age-limitations, in recent years, and with a long follow-up.

Our results suggest that the burden of IPF could be considerable: required healthcare resources could be substantial, as the disease duration seems to be growing and IPF patients are likely to be hospitalized.

Key messages

- We studied the epidemiology and clinical course of IPF in one of the largest samples ever considered
- IPF burden could be considerable, as patients are likely to require high health expenditures

Relationship of air-pollution with the acute exacerbation of chronic obstructive pulmonary disease

Selma Metintas

SM Metintas[1], EG Gaga[2], IA Arikan[3], HE Ercelik[4], GK Kucukacil[2], HA Altug[2], TD Dogeroglu[2]

[1]Public Health Dept, Eskisehir Osmangazi University Faculty of Medicine, Eskisehir, Turkey

[2]Anadolu University, Dept of Environmental Engineering, Eskisehir, Turkey

[3]Dumlupinar University Medical School of Public Health Dept, Kutahya, Turkey

[4]Dumlupinar University Medical School of Emergency Dept, Kutahya, Turkey

Contact: selmametintas@hotmail.com

Background

Kutahya is among the cities in Turkey where air pollution is heavy. Chronic obstructive pulmonary disease (COPD) being the most affected disease from environmental factors such as air pollution. The purpose of the study is to evaluate the relationship of air-pollution with admissions to the emergency unit with the acute exacerbation of COPD.

Method

Time-series analysis was performed in order to identify the relationship between Kutahya province pollution indicators and the number of admissions to Dumlupınar University Hospital Emergency Department with acute COPD exacerbation between the dates 1 January 2013 and 31 January 2014 (for a total of 734 days). The diagnoses of acute COPD exacerbations according to the ICD-10 were retrieved from the electronic registration system. The daily average SO2, NO2, and O3 and particulate matter and average temperature and relative humidity values were obtained from Air Quality Monitoring Station. For the time-series design, generalized gradual linear method (GAM) was used. In the GAM, the potential confounding effects were calculated. Acute COPD exacerbations were taken as the dependent variable which was converted to normal distribution by taking the linear logarithm.

Results

There were 11 109 admissions to the emergency department with acute exacerbation of COPD. Daily mean(SD) and median number of acute COPD exacerbation were 15(14) and 12, respectively. Of the air pollution indicators, mean(SD) PM was 66.5(36), SO2 was 11.3(8.6), NO2 was 39.3(11.2) and O3 was 47.2(24.7). Mean daily temperature was 11.6(7.7) and humidity was 64.9(13.3). In multivariate linear regression analysis, the variables affecting the admissions to acute COPD exacerbations were weekends, days of the week, daily mean temperature, daily humidity, NO2 and O3 (R2 : 0.592; F : 70.636; $p < 0.001$).

Conclusions

The air pollution in Kutahya is in near the danger limits. Acute COPD exacerbations increase in certain days of the week and with increased humidity rate and NO2 and decreased O3.

Key message

- To evaluate the relationship of air-pollution with health effects is so important.

Tobacco use in Cape Verde: a national study on prevalence and determinants

Maria Rosa Lopes Semedo

R Semedo[1], H Barros[1,2]

[1]EPIUnit - Institute of Public Health, University of Porto, Porto, Portugal

[2]Department of Clinical Epidemiology, Predictive Medicine and Public Health, University of Porto Medical School, Porto, Portugal

Contact: rosacaboverde@yahoo.com.br

Introduction

Smoking is a major risk factor for chronic noncommunicable diseases, the prevalence of which is increasing in low- and middle-income countries, especially in sub-Saharan Africa. This study describes the frequency and determinants of tobacco consumption by Cape Verdean adults.

Methods

We studied 1762, 25–64-year-old, individuals sampled during the National Survey on Chronic Noncommunicable Diseases per the STEPS World Health Organization approach. Standard procedures were used to collect information on social, demographic, and behavioral characteristics. Prevalence of tobacco use was estimated according to these characteristics, with the association strength estimated by logistic regression odds ratios and their 95% confidence intervals (95% CI), considering the specific sampling procedures.

Results

Overall prevalence of current smoking was 9.9% (95% CI: 7.3–13.3), including 15.9% in men and 4.0% in women with 12.9% of men and 3.2% of women reporting daily smoking. Tobacco use was more frequent in the 35–44-year age group (25%), low-income families, and subjects who consumed alcohol daily. Smokeless tobacco was reported by 4.7% (95% CI: 2.5–8.6) of the population, reaching 20.1% in women aged 55–64 years. Snuff was the most often used type of smokeless tobacco. Smokeless tobacco was significantly more frequent in rural, less educated, and older subjects.

Conclusions

The present survey shows that the tobacco epidemic in Cape Verde, as in similar culture and income countries, can not immediately be ascribed to the traditional 4 stages description used for high income populations. Higher prevalence in older adults might represent a special situation of epidemiological transition. However, as the identified tobacco use determinants relate to other known risk factors for chronic noncommunicable diseases and considering other countries experience, a comprehensive prevention strategy is needed, with special targeting to traditional tobacco use in women.

Key messages

- Traditional forms of tobacco use are frequent, especially among older women, with low education and in rural settings, in Cape Verde
- Cape Verde can be considered among the sub-Saharan African countries with overall low prevalence of smoking, even if a high frequency in younger, less-educated participants is of major concern

Health impact of ambient air pollution in Kerala, India. A first quantitative risk assessment

Myriam Tobollik

M Tobollik[1], *D Plaß*[1], *D Wintermeyer*[1]
[1]Federal Environment Agency (UBA), Section for Exposure Assessment and Environmental Health Indicators, Berlin, Germany
Contact: myriam.tobollik@uba.de

Background

Globally, ambient air pollution is an important risk factor for human health. Particularly in South Asia, this risk factor causes a considerable disease burden. For developing effective mitigation programs small-scale health risk assessments are needed to quantify the effects of ambient air pollution on health. The objective of the study is to test the feasibility of the environmental burden of disease (EBD) concept at state level in India and to quantify a first set of disease burden estimates due to ambient air pollution in urban areas of Kerala.

Method

Particulate Matter (PM) is used as an indicator for ambient air pollution. The disease burden due to PM2.5 is quantified in Years of Life Lost (YLL) for the female and male population aged 30 years and older living in urban areas of Kerala. Scenario analyses are performed to account for uncertainties in the input parameters.

Results

About 6,100 (Uncertainty Interval (UI): 4,150–7,790) total natural deaths can be attributed to PM, resulting in about 96,000 (UI: 65,000–123,000) YLLs due to premature mortality (base case scenario, average for 2008–2011). Depending on the underlying assumptions the results vary between 47,000 and 377,000 YLLs. Scenario analyses show that a decrease of 10% in PM concentration would save around 16,000 (UI: 11,000–20,000) life years and an increase by 10% would elevate the burden by nearly 13,000 (UI: 9,000–16,000) YLLs. A sensitivity analysis shows that around half of the disease burden caused by PM is due to cardiovascular causes.

Discussion

The results foster awareness about air quality standards at local level and can support decision-making processes aiming at cleaner and healthier environments and improved health. Besides some limitations due to lack of data the EBD-concept is applicable at state level. The assessment is limited to effects of ambient air pollution. However, indoor air pollution is an additional health risk in India which needs to be assessed for a comprehensive quantification of disease burden due to air pollution.

Key messages

- The environmental burden of disease concept is applicable at state level for Kerala, India
- In the base case scenario about 96,000 (UI: 65,000–123,000) Years of Life Lost (YLL) due to premature mortality can be attributed to ambient particulate matter

Association of Diabetes and Endocrine Related Cancers in Turkish Balcova Heart Study Cohort

Gül Ergor

S Yılmaz, A Açıkgoz, G Ergor, B Unal
Dokuz Eylul University Faculty of Medicine Department of Public Health, Turkey
Contact: belgin.unal@deu.edu.tr

In this study we aimed to evaluate the association between diabetes and endocrine cancers in the Balçova Heart Disease Cohort.

Methods

The participants were indentified in a cardiovascular risk factor survey in İzmir, Turkey Balcova Heart Study (BHS). The baseline survey was conducted as a community screening programme from 2007 to 2009 in population over 30 years of age. Data on demographics, socioeconomic status and disease history were collected using a questionnaire. Diabetes definition was based on fasting blood glucose level ≥126 mg/dl and self-reported diabetes history. Data on incident cancer cases and patological types (pancreas, liver, breast, colorectal, urinary tract, and female reproductive organs) were obtained from the İzmir Cancer Registration Centre between the period of 2007 and 2014. Age adjusted odds ratios of cancer types for people with diabetes were calculated using logistic regression models.

Results

In total data from 10 375 women (65,4%) and 5494 men (34,6%) who did not declare any cancer in 2007 were evaluated. The incidence of endocrine cancers were 2293 per 100 000 in men and 1455 per 100 000 in women. The most common types of cancer were breast (810 per 100 000), colorectal (193 per 100 000) and uterus cancer (106 per 100 000) in women. In men prostate (1456 per 100 000), colorectal (346 per 100 000) and bladder (291 per 100 000) cancer were the most common cancer types.

At the beginning of the study, 1643 (%10.4) people had diabetes. The age adjusted OR of having diabetes for overall endocrine cancers were 0.96 (95% CI: 068–1.37).

The ORs for colorectal cancers was 0.63 (95% CI:0.22–1.79), for urogenital cancers (OR:0.90, 0.27–3.04), for breast cancer (OR: 0.84, 95% CI:0.42–1.71), for prostate cancer (OR: 1.25, 0.71–2.21), for liver cancer (OR:4.25, 0.92–19.63), for bladder cancer (OR:1.08, 0.37–3.22),

Conclusion

There was no statistically significant association between diabetes and endocrine related cancers in this seven years cohort study. The analyses can be repeated in the future, when the cohort gets older and more incident cases of cancers occur.

Key message

- There was no statistically significant assocition between diabetes and endocrine related cancers

Thyroid disorders in population living around the Semipalatinsk Nuclear Test Site, Kazakhstan

Mayra Espenbetova

M Espenbetova[1], *Zh Zamanbekova*[1], *Sh Sadykova*[2], *N Glushkova*[1], *K Amrenova*[1], *O Yurkovskaya*[1], *A Dyussupova*[1], *Zh Zhumanbayeva*[1], *A Dosbayeva*[1], *A Krykpayeva*[1], *A Yespenbetov*[1]
[1]Department Internship on General Practice and Endocrinology, Semey State Medical University, Semey, Kazakhstan
[2]Kazakh National Medical University named after Asphendiyarov, Almaty, Kazakhstan
Contact: espenbetova@inbox.ru

Introduction

It is well known that the thyroid gland is one of the most radiosensitive human organs. The Semipalatinsk region in Kazakhstan was the sites of Soviet nuclear weapon testing for 40 years. It has been confirmed that thyroid exposure to ionizing radiation increases the risks of thyroid cancer, but we still have lack of knowledge how its influences to benign thyroid disorders. The aim was to evaluate the occurrence of thyroid disorders among affected population living around the Semipalatinsk Nuclear Test Site.

Methods

Thyroid examinations (palpation, ultrasound and selected laboratory parameters) were conducted in three regions in the East Kazakhstan region (former Semipalatinsk regions) during May-September 2012. The study population in a total amount 4083 (1836 men and 2247 women) were invited for thyroid screening. An estimated dose was 200 to 499 cSv that reflected accumulated lifetime doses in regions of high and increased radiation risk.

Results

The mean age for participants was 59.43 years. Palpation indicated that more than 35% (95% CI: 32.11 to 37.25) of examined residents had structural thyroid abnormalities. Ultrasound examinations detected thyroid nodules in 28.3% (95% CI: 27.24 to 29.51) and adenomas in 7.9% (95% CI: 5.71

to 6.32) individuals. Abnormalities of thyroid stimulating hormone (TSH) was found 19.14% – hypothyroidism (95% CI: 18.60 to 22.36) and 2.13% – hyperthyroidism (95% CI: 1.04 to 3.51). Markers of autoimmune thyroid disease (high level of anti-peroxidase antibody – TPOAb) were revealed in 42% (95% CI: 37.15 to 43.11) screened population.

Conclusions

The study indicated the high prevalence of structural (nodules and adenomas – 36.2%), functional (hypothyroidism – 19.14%) including autoimmune thyroid disease among the affected population (42%). This fact underlined possibility radiation induced immunodeficiency and development of another autoimmune diseases in each second affected individual or offspring. We still count the victims of the nuclear weapon testing in former Semipalatinsk regions. Future studies and development of rehabilitation programs should be one of priorities for the scientific community and the government.

Key messages

- We still count the victims of the nuclear weapon testing in former Semipalatinsk regions
- Future studies and development of rehabilitation programs should be one of priorities for the scientific community and the government

4.W.N. Poster walk: Child and adolescent public health

Self-rated health in 100 countries between 1990 and 2013 regarding world values surveys

Hur Hassoy

I Ergin, H Hassoy
Ege University Public Health Department, Izmir, Turkey
Contact: hhassoy@gmail.com

Health is very sensitive to unequal access to economic, cultural and social resources. The construction of the society for accessibility to these resources has been proven to be among the major determinants of health. Aim:To map the health status determined in the World Values Surveys(WVS) between 1990–2013 and to determine any accumulating feature at country level for bad health.

Methods

WVS; is a dataset of almost 100 countries with five separate cross-sections(1990, 1996, 2001, 2007, 2013). It analyzes and compares the basic public values of countries and their impact on social and political life. Using this database, question on self-rated health(SRH) was evaluated(N = 328 437) with 96.4% response rate. For SRH, participants were asked to choose from very good(1), good(2), fair(3) and poor(4) and this instrument is a strong predictor of health care utilization, morbidity and mortality outcomes. The mean of the four-scale score for each country at each year's survey was calculated and the worst scorers were evaluated.

Results

The mean SRH score was 2,20 ± 0,89. The worst scorers were Moldova in Wave 1999–2004(2,98 ± 0,85), Russian Federation in Wave 1994–1998(2,95 ± 0,75) and Ukraine in Wave 1994–1998(2,94 ± 0,77). Among the 25 worst scorers, 23 of them were former Eastern Bloc countries. Apart from them, only two countries (South Korea 1981–1984 and Rwanda 2005–2009) scored in the 25 worst scorers.

Conclusion

At country level, in the last 25 years, the most important health deteriorating effects have accumulated at former Eastern Bloc/post-communist countries. This implies a critical approach to what market economies have brought about to these countries regarding their health status.

Key message

- in the last 25 years, the most important health deteriorating effects have accumulated at former Eastern Bloc/post-communist countries

Risky sexual behaviours among opioid dependent patients undergoing methadone treatment

Catherine Marimoutou

S Duron[1,2], C Lions[2,3], A Mayet[1,2], L Michel[2], G Maradan[2], P Roux[2,3], A Morel[2], PM Carrieri[2,3], C Marimoutou[1,2]
[1]Centre d'épidémiologie et de santé publique des armées, Marseille, France
[2]SESSTIM-UMR 912, Aix-Marseille université, Marseille, France
[3]INSERM U.379, Marseille, France
Contact: marimoutouc@aol.com

Background

Injected drug users (IDU) are known to be at-risk for HIV infection due to injection sharing but also to risky sexual behaviours. Methadone, used to treat opioid dependence, is recognised to reduce HIV transmission by reducing intravenous drug injection. Its impact on risky sexual behaviours remains unclear.

Methods

This issue was addressed in the ANRS-Methaville trial, a multi-site, open-labelled, randomized, controlled, non-inferiority trial, comparing Methadone initiation in specialized centres to initiation in primary care facilities (PCF) in France. The present study concerned the 175/195 subjects with data on sexual practices at M0, M3 or M12. The main outcome measure was risky sexual practices defined by multiple partnership (≥ 2) or lack of condom use with new partner during the past 12 months.

Results

Study patients were 27 (15.4%) women and median aged 32 years [IQR: 27–38]. The proportion of patients declaring risky sexual practices was low and stable: they were 14% at inclusion and 16% after one year on Methadone treatment. After adjustment on possible confounders, being employed increased the risk of risky sexual practices (OR = 3.6; 95%CI: 1.3 – 10.8), while living in couple (OR = 0.2; 95%CI 0.05–0.6) and Methadone induction in PCF (OR = 0.3; 95%CI 0.09 – 1.02) decreased it.

Declaring having absolute confidence in their physician tended to decreased the risk (p = 0.08) compared to patients declaring no or rather confidence.

Conclusions

The present study showed that risky sexual behaviors among patients seeking for opioid dependence treatment were similar to those of general population. However, as adapted and validated tools exist and were proven efficient, counselling strategies on HIV risk-reduction for these patients should target sexual behaviours in addition to classic counselling on addictive behaviours. According to the literature and our results, this strategy should rely on PC healthcare workers who are central actors of prevention.

Key messages

- Risky sexual behaviours are not higher among patients seeking for opioid dependence treatment than in general population, but did not decrease during methadone therapy follow-up
- Sexual behaviours counselling has to be systematically added to addiction counselling during methadone therapy. Primary care facilities seem particularly suitable for this counselling

Health literacy: varying relations with control over care and number of GP visits

Iris Van Der Heide

I van der Heide[1], *M Heijmans*[1], *AJ Schuit*[2], *E Uiters*[2], *J Rademakers*[1]
[1]Netherlands Institute for Health Services Research (NIVEL), Utrecht, The Netherlands
[2]National Institute for Public Health and the Environment, Bilthoven, The Netherlands
Contact: i.vanderheide@nivel.nl

Introduction

In chronic care, patients are expected to exert a certain degree of control over the care for their condition, for instance by fulfilling care tasks in their home environment. Health literacy is considered relevant in this regard, especially critical health literacy. The aim of this study was to examine to what extent functional, interactive and critical health literacy are associated with patients' perceived control over care and with the frequency of GP visits.

Methods

Data from the Dutch 'National Panel of people with Chronic illness or Disability' were used (N = 2508). Functional, interactive and critical health literacy was assessed by the Functional, Communicative and Critical Health Literacy measure (FCCHL). Perceived control over care was indicated by perceived ability to: organize care, interact with providers and perform self-care. By stepwise linear regression analyses, associations between health literacy and ability to organize care, interact with providers and perform self-care were studied. By stepwise logistic regression analysis, associations between health literacy and frequency of GP visits was studied. Analyses were adjusted for sex, disease knowledge, cognitive functioning, age, level of education, and health status.

Results

Lower functional and interactive health literacy were significantly associated with a lower perceived ability to organize care and to perform self-care. Only lower interactive health literacy was significantly associated with a lower perceived ability to interact with healthcare providers. Only lower functional health literacy was significantly associated with a higher frequency of GP visits.

Conclusions

The results imply that functional, interactive and critical health literacy vary in their relevance for patients' ability to exert control over care. Initiatives to strengthen patients' role in healthcare may be improved by attention for patients' health literacy, especially functional and interactive.

Key messages

- Attention for functional and interactive health literacy skills may help chronically ill people to exert control over their care
- Chronically ill people with lower functional health literacy seem to need more support from general practitioners than those with higher functional health literacy

AppsTerv – Web-based applications for mental health

Merike Sisask

M Sisask, L Mark, P Värnik, J Vaikma, A Värnik
Estonian-Swedish Mental Health and Suicidology Institute (ERSI), Tallinn, Estonia
Contact: sisask.merike@gmail.com

Issue

AppsTerv is a project to improve the quality and attractiveness of web-based applications for mental health, to increase the level and range of counselling services available for young people, and to raise mental health awareness among youth, parents and specialists in Estonia.

Problem

Access to mental health services may be problematic due to stigma, low awareness and poor availability of professional (psychiatric, psychological) help. Web-based applications will increase the availability of mental health services due to their cost-effective nature and independence of the service user's geographical location, transport connections and life arrangement.

Changes

The objective of the AppsTerv project will be reached by (1) establishing a new informative webpage with reliable mental health and life-style information in Estonian and Russian languages, (2) developing web-based counselling service environments (forum, e-mail), (3) developing and empowering the network of web-based counsellors (specialists, volunteers), (4) developing self-help smartphone apps for different mental health problems (deliberate self-harm, suicidal ideation, depression, fatigue).

Lessons

The project is tackling several bottlenecks regarding mental health awareness and availability of help. As daily internet use is far-spread in Estonia, development of web-based solutions has a great potential for introducing changes. Life-style information as a preventative strategy directs people to take care of their body and mind. Mental health information normalises mental health problems and help seeking (before more serious conditions), as well as enables early identification. Self-help opportunities provide support for people who hesitate to visit a professional.

Key message

- Web-based applications enable improved accessibility to reliable mental health information, services and self-help opportunities

Sleep quality as mediator between drinking and depressive symptoms

Lan Guo

L Guo[1], *C Lu*[1], *WH Zhang*[2]
[1]Department of Medical Statistics and Epidemiology, School of Public Health, Sun Yat-sen University, Guangzhou 510080, People's Republic of China
[2]Epidemiology, Biostatistics and Clinical Research Centre, School of Public Health, Université Libre de Bruxelles (ULB), Belgium
Contact: 260004774@qq.com

Backgroud

Previous researches indicated that drinking related to poor sleep quality and depressive symptoms, and poor sleep quality also was associated with depressive symptoms. However, the mechanisms between these relationships have not yet been determined. In this study, we aimed to investigate whether sleep quality mediate the relationship between drinking and depressive symptoms.

Methods

A self-administered questionnaire was used to collect data from 34,283 high school students selected in Guangdong province in China. The Pittsburgh Sleep Quality index (PSQI) was used to assess the occurrence of sleep disturbance, and the Center for Epidemiology Scale for Depression (CES-D) was used to identify whether individuals had depressive symptoms. A path model was produced by using AMOS 17.0.

Results

The mean PSQI global score was 5.6 (± 2.8) points, and the mean CES-D score of students was 14.5 (± 8.6) points, and 5.9% of the students had depressive symptoms. The results of the path model suggested that with adjustment for age, gender, family economic status, and study pressure, the standardized direct effect between drinking and poor sleep quality was 0.077, and between drinking and depressive symptoms was 0.007. Our results also showed that the standardized indirect effect between drinking and depressive symptoms was 0.031, which represents 81.6% of the total effect of drinking on depressive symptoms.

Conclusions

These results suggest that sleep quality mediated the association between drinking and depressive symptoms. We should focus on the high-risk population who was involved in both drinking and poor sleep quality.

Key messages

- These results suggest that sleep quality mediated the association between drinking and depressive symptoms
- The mean PSQI global score was 5.6 (± 2.8) points, and the mean CES-D score of students was 14.5 (± 8.6) points, and 5.9% of the students had depressive symptoms

Problematic mobile phone use in late childhood and early adolescence in Padua, Italy, 2014–15

Andrea Rabensteiner

L Gallimberti[1], *A Buja*[2], *LJ Goméz Peréz*[1], *S Chindamo*[1], *A Rabensteine*[2], *E Marini*[1], *A Terraneo*[1], *V Baldo*[2]
[1]Novella Fronda Foundation for studies and applied clinical research in the field of Addiction Medicine, Padua, Italy
[2]Department of Molecular Medicine; Laboratory of Public Health and Population Studies, Institute of Hygiene, University of Padua, Italy
Contact: andrea.rabensteiner@studenti.unipd.it

Background

In our previous studies it was evidenced that substance abuse behaviours already start in early adolescence (6th –8th grade) with many substances such as alcohol, tobacco and marijuana. The present study focused on another risk behaviour, the problematic cell phone use (PCPU), which has been spreading in early adolescence in recent years. Researchers revealed that PCPU is associated with smoking and alcohol consumption in older adolescence. The aim of our study was to examine the association between the PCPU both with substance abuse behaviours and the same factors evidenced to be risk for substance abuse in children and young adolescence.

Methods

This cross-sectional study was conducted on the basis of an ad-hoc questionnaire, during the 2014–2015 school year in Padua, a province of the Veneto Region, Italy, and involved a sample of 1156 students in grades 6 to 8. To evaluate problematic cell phone use, self-administered scale based on the SMS Problem Use Diagnostic Questionnaire (SMS-PUDQ) was inserted into the questionnaire. A multivariate logistic regression model was applied to seek associations between PCPU as dependent variable and independent variables.

Results

The percentage of students who report having PCPU increases with age in girls (13.5% of 6th graders, 16.4% of 7th graders and 19.5% of 8th graders) but not in boys (14.3% of 6th graders, 18.0% of 7th graders and 14.8% of 8th graders). Logistic regression evidenced that students who experienced lifetime drunkenness and lifetime energy drink consumption had higher odds of PCPU, while students reading books, getting higher average school marks and having a longer nocturnal sleep duration had lower odds of PCPU in late childhood and early adolescence.

Conclusion

Our findings show a widespread PCPU in early adolescence. The odds of PCPU is greater in young adopting other unhealthy risk behaviours and reduced in young adopting healthy behaviour and achieving high performance at school.

Key messages

- The study evidenced a widespread PCPU in early adolescence and the association between PCPU with other unhealthy risk behaviours
- Prevention must be aware of and take into account this new risk behaviour

Suicide and Family Contagion

Aideen Maguire

A Maguire
Centre for Public Health, Queen's University Belfast, UK
Contact: a.maguire@qub.ac.uk

Background

Suicidal behaviour is generally considered to be a multi-determined act with psychosocial, personality, family, psychiatric, biologic, genetic and psychodynamic risk factors. Recent studies have suggested that one important suicide risk factor is having a family history of suicidal behaviour and the media often report on the contagious effect of suicide. There is a need to understand the risk factors for suicide so that interventions can be targeted to those most at risk. This study aims to ask is there an intra-family risk of suicide and does it vary given relationship of the bereaved to the deceased.

Methods

The study utilizes data on the family from the 2001 Census linked to death data from the General Registrars Office in the subsequent decade to determine if exposure to death by suicide in the family is associated with an increased risk of suicide in the individual.

Results

Over the ten year period of 2001–2011, 1,438 individuals in Northern Ireland died by suicide exposing 1,945 co-residents to a suicide within the household. Intra-familial deaths were minimal with only 14 deaths by suicide occurring in the same household. No household experienced more than 2 deaths by suicide over the study period. Being exposed to a suicide in the household greatly increased your likelihood of dying by suicide however analysis was limited given the small number of observations.

Conclusions

The number of deaths by suicide occurring within a household over the study period was minimal. However, identifying families and social networks by household residence is not ideal and this method may not have accurately conceptualised the family and/or wider family network. Additional analysis identifying deaths within areas is underway and will be discussed later.

Key messages

- Little evidence of an increased risk of death by suicide if you are exposed to suicide in your household
- However, there is a need for more nuanced methods of identifying families and social networks, which will be discussed as future directions for this study

Training and scope of practice of GPs in Europe- A qualitative study in three European countries

Ketevan Glonti

K Glonti[1], *V Struckmann*[2], *A Alconada*[3], *LM Pettigrew*[3], *V Hernandez-Santiago*[4], *S Minue*[5], *I Risso-Gill*[1], *M McKee*[1], *H Legido-Quigley*[3]
[1]ECOHOST - The Centre of Health and Social Change, London School of Hygiene and Tropical Medicine, London, UK
[2]Department of Health Care Management, Berlin University of Technology, Berlin, Germany
[3]London School of Hygiene and Tropical Medicine, London, UK
[4]Division of Population Health Sciences, Medical Research Institute, University of Dundee, Dundee, UK
[5]Andalusian School of Public Health, Granada, Spain
Contact: ketevan.glonti@lshtm.ac.uk

Background

The current EU Directive 2005/36/EC has established a minimum training duration for post-graduate qualifications, leaving definitions of skills required and scope of practice to national authorities. Increased mobility of health professionals and lack of standardization is leading to increasing concerns regarding fitness to practise safely in another European country and quality of care. However there is little comparative research on GPs' across Europe. This paper seeks to address this gap by examining the commonalities and differences in training, continuing medical education, scope of practice, ethical issues and things that need improvement in England, Germany, and Spain.

Method

Qualitative study with 35 GPs from England, Germany and Spain working in urban primary care practices. Participants were recruited using convenience and snowball sampling techniques. Semi-structured interviews were recorded, transcribed and analysed by four independent researchers adopting a thematic approach.

Results

Entrance to and length of GP training differ between the three countries, with continuing medical education being present in all three. Key variations in the scope of practice include whether there is a gatekeeping role, whether GPs work in multidisciplinary teams or singlehandedly, the existence of appraisal processes, and the balance between administrative and clinical tasks. GPs in these countries face similar challenges, including the need to adapt to an ageing population, end-of-life care, ethical dilemmas, the impact of austerity measures, limited time for patients and gaps in coordination between primary and secondary care.

Conclusion

Primary health care variations have strong historical roots, derived from the different national experiences and the range of clinical services delivered by GPs. There is a need for an accessible information source for GPs moving to another country.

Key messages

- This paper contributes to a better understanding of the scope of GP practice across Europe
- GPs who are interested in moving to another country should be provided with information on the new health care system. This should include ethical and professional regulatory frameworks

Opportunities and systems requirements for developing post-abortion family planning in China

Hong Jiang

H Jiang[1], J Xu[1], E Richards[2], X Qian[1], N Jiao[1], H Du[1], WH Zhang[3,4], RI Tolhurst[2], INPAC consortium[5]
[1] School of Public Health, Fudan University; Key Laboratory of Public Health Safety, Ministry of Education, Shanghai, China
[2] Liverpool School of Tropical Medicine, United Kingdom, Liverpool, UK
[3] International Centre for Reproductive Health, University Gent, Gent, Belgium
[4] School of Public Health, Université Libre de Bruxelles (ULB), Bruxelles, Belgium
[5] The INPAC consortium: ICRH, Belgium: M Temmerman, WH Zhang; CMA-CSFP, China: J Li; FU, Shanghai, China: X Qian; NRIFP, Beijing, China: S Wu; WCSUH, China: L Hu; AU-DESC, Aarhus, Denmark: J Olsen; LSTM, Liverpool, UK R Tolhurst)
Contact: h_jiang@fudan.edu.cn

Background

Around 13 million induced abortions are conducted annually in China of which over 1/3 are repeated induced abortions. However, provision of qualified post-abortion family planning (PAFP) services which can help to reduce repeated induced abortions remains a challenge in China. This paper aimed to understand the perceptions of the key service stakeholders regarding family planning and abortion service provision, and the demand for and feasibility of PAFP in the current context of China.

Methods

A qualitative study was conducted, including 53 in-depth interviews and 11 focus group discussions in Zhejiang, Hubei and Yunnan Province, representing high, medium and relatively undeveloped areas of China. Interviewees included health policy makers, hospital and family planning managers, and service providers. Data were coded by use of Nvivo 7.0 computer software and were analysed thematically using a framework approach.

Results

Increased rates and numbers of abortions among young, unmarried women were perceived as a major reason for high abortion rates. This was understood by participants to be connected to increasing socio-cultural acceptability of pre-marital sex, and simultaneously, lack of understanding or awareness of contraception among young people. The majority of service stakeholders acknowledged that family planning services were neither targeted at, nor accessible to unmarried people. The extent of PAFP provision is variable and limited in three provinces. However service providers expressed willingness and enthusiasm towards carrying out PAFP service in the future. Three main considerations were put forward regarding the feasibility of developing and implementing PAFP services: political support, human resources, and financial resources.

Conclusion

The study indicated that service stakeholders show demands for and perceived considerable opportunities to develop PAFP care in China. However, systems changes will be needed to develop qualified PAFP, including obtaining political support and increasing the investment of human resources and financial resources.

This research was is funded by European Commission (EC) under the Seventh Framework Programme (FP7). Project number: 282490.

Key message

- There are demands for and considerable opportunities to develop PAFP care in China. However, system changes, such as political support, investment of human and financial resources, will be needed

Psychosocial well-being, perceived loneliness and self-esteem among Finnish children

Leena Koivusilta

L Koivusilta, N Junttila
School of Public Health, University of Tampere, University Consortium of Seinäjoki, Finland
Department of Teacher Education, University of Turku, Turku, Finland
Contact: leena.koivusilta@uta.fi

Background

Psychosocial well-being in youth constitutes resources for later life careers. Of particular importance is self-esteem, partly developing in peer contacts. We tested a hypothesized path starting from a child's ability to identify his/her feelings and going through social competence to self-esteem. Recent emphasis on connections between perceived loneliness, social skills, and self-esteem further led to studying loneliness as a link between social competence and self-esteem.

Methods

In total, 399 10–11-year-olds (rr 49%) and 863 13–16-year-olds (rr 64%) took part in a survey using a modified Toronto Alexithymia Scale (TAS), Multisource Assessment of Children's Social Competence (MASK), a modified Peer Network and Dyadic Loneliness (PNDL) scale, and Rosenberg Self-Esteem Scale (RSES). Summary variables were total TAS; MASK: co-operation skills, empathy, impulsiveness, disruptiveness; PNDL: social and emotional loneliness; total RSES (α: .666−.884). In SEM, RSEA was .037.

Results

TAS was associated with co-operation, empathy, impulsiveness, social loneliness, and RSES. Empathy was associated with both types of loneliness, and impulsiveness and disruptiveness with social loneliness. Co-operation, impulsiveness, and both types of loneliness were associated with RSES. The strongest indirect pathway mediated by loneliness involved TAS, social loneliness and RSES. Also, a path from TAS via empathy and social loneliness to RSES was frequent. Pathways slightly differed in models by gender and grade.

Conclusions

Based on a plausible hypothesis, poor recognition of feelings may start a path reducing chances for positive peer interaction and adding to social loneliness (no network), which adds to a probability of low self-esteem. Emotional loneliness (no close attachment) was of minor importance for self-esteem. The path directions should be debated, but activities are needed to promote recognition of feelings and participation in peer groups.

Key messages

- Poor recognition of feelings may start a path reducing chances for positive peer interaction and adding to remaining outside social networks, which adds to a risk of poor self-esteem

- Activities should be developed, e.g. in schools, to promote psychosocial well-being and particularly, recognition of feelings and participation in peer groups

Impact on population alcohol use of policy changes following WTO membership in Taiwan

Cheng-Che Chen

CC Chen[1], *KW Cheng*[2], *SS Chang*[1]
[1]Department of Psychiatry, St.Joseph's Hospital, Yunlin County, Taiwan,
[2]Institute of Health Policy and Management, and Department of Public Health, College of Public Health, National Taiwan University, Taipei, Taiwan
Contact: hugocc@gmail.com

Background

Little is known about the effect on population alcohol use of policy changes associated with World Trade Organization (WTO) agreements in Asia, where the relatively low alcohol drinking prevalence and the beverages commonly consumed differ from those in Western countries. For example, rice wines are popular in East Asia, and in Taiwan, the rice wine ''Mijiu'' was once the cheapest distilled spirit. It is commonly believed that Mijiu is the main beverage consumed by heavy drinkers who could not afford other spirits but there is a lack of previous research. When Taiwan became a WTO member in 2002, Mijiu was categorized as a spirit and its price rose markedly.

Methods

We analyzed data from the nation-wide Nutrition and Health Survey (1993–1996 and 2004–2008) in Taiwan, which included detailed information on alcohol use.

Results

The preference of spirits consumed changed between the two periods - the prevalence of drinking Mijiu and Western spirits decreased, while the prevalence of drinking domestically produced spirit ''Baijiu'' increased. The daily ethanol intake was highest amongst Mjjiu drinkers compared to drinkers of other alcoholic beverages in both the two periods and increased markedly from 38.6 mL to 105.5 mL. The prevalence and preference differed between men and women.

Conclusions

Drinkers who consumed Mijiu, which was commonly used in cooking, tended to have high ethanol intake, suggesting that they were more likely to have alcoholic problems than drinkers of other alcoholic beverages. The tax rise of Mijiu was followed by a reduction of its drinking prevalence, but people who remained drinking Mijiu appeared to a group with particularly high alcohol consumption. Our findings have policy implications for international trade agreements which may have unintended impact on alcohol misuse and related health issues.

Key messages

- This natural experiment provides a unique opportunity to investigate the impact of policy changes associated with international trade agreements on the pattern of alcohol use in an Asian country
- Drinkers who consumed Mijiu, which was commonly used in cooking, tended to have higher alcohol intake, suggesting that they were more likely to have alcoholic problems

Alcohol-related hospital admissions in England by age, sex, local authority and socioeconomic status

Alexander Kalic

A Kalic, A Memon, P Myles
Brighton and Sussex Medical school, UK
Contact: A.Memon@bsms.ac.uk

Background

Alcohol misuse is associated with a variety of acute and chronic conditions and diseases. The total annual cost to the society of alcohol-related harm is estimated to be £21bn, and the National Health Service (NHS) incurs a cost of about £3.5bn per year. We used admission data based on Alcohol attributable fractions (AAFs), available from the Health and Social Care Information Centre (HSCIC) and chloropleth maps to study the distribution of alcohol-related hospital admissions in England by age, gender, local authority and socioeconomic status.

Methods

Alcohol attributable fractions (AAFs) for 47 conditions in the year 2012–13 by age, gender and local authority (LA) in England (n = 353) were paired with population estimates of mid-2012 for age groups; <16, 16–24, 25–34, 35–44, 45–54, 55–64, 65–74 and 75+ years. Alcohol attributable admission rate (AAAR) is presented in chloropleth maps to identify geographical patterns in alcohol-related hospital admissions. A gender specific admission rate ratio by age group is also presented. The average socioeconomic status (NS-SeC) of local authorities was explored to determine effects on respective admission rates by gender and age group.

Results

Relatively high <16 admission rates were associated with small birth weight, which may be due to maternal drinking during pregnancy. In adults of working age (16–65), LAs within the North West and North East generally had the highest rates. As the population ages, LAs within Greater London begin to show a high burden of admission: this is of note in age groups 55–64 and particularly the elderly (65–74 and 75+), where Islington accounted for the highest rate in the country. Admission rates were highest in men in the majority of LAs for most age groups, except for people aged <16.

Conclusion

In males, AAAR increases exponentially with age. For females, the highest AAARs were seen at ages 55–64. LAs in Greater London have some of the highest AAAR for males aged 55+. However, in those aged 16–54, the highest AAARs were seen in the North West and North East of the country. Low NS-SeC was strongly associated with high AAAR at ages 35–44 for women and 45–54 for men. The online interactive chloropleth maps produced are original within this study, and can be used for health needs assessment and monitoring the impact of public health interventions.

Key messages

- Calculating age and sex specific alcohol-related admission rates by local authority has identified populations in England for targeted screening and interventions
- At a local and national level, chloropleth mapping could be a valuable means of visualizing trends and the effectiveness of public health strategies and interventions to reduce alcohol-related harm

5.W.F. Poster walk: Surveillance and public health practice

Patients' experiences with GPs – testing of a new questionnaire I Norway

Olaf Holmboe

O Holmboe, K Danielsen, HH Iversen
Norwegian knowledge centre for the Health services, Oslo, Norway
Contact: olh@nokc.no

Background

Patients' experiences are increasingly used as quality indicator in health services. NOKC reviewed literature on patient experiences with GPs. We found no survey that could be used in a Norwegian context, due to organization of health services and important aspects of Norwegian health policy.

We developed and tested a new questionnaire based on findings in literature, discussions in an expert group and interviews with patients.

Methods

After a pilot study the questionnaire was revised and tested in a nationwide survey. The questionnaire included important themes from literature and Norwegian health policy. The sample was drawn in two steps. First we randomly selected 500 GPs stratified by their practice size (number of GPs at practice) and by urbanity and their municipality's main business sector. Then we randomly selected 10 patients from each of these GPs' lists. Due to technical errors, deaths and erroneous addresses some of the patients were excluded and 4857 persons were mailed a survey with an option to answer electronically. We used factor analyses to identify scales in the questionnaire. These were evaluated by Cronbach's alpha, item-total correlation and test-retest correlation for reliability.

Results

We received 2377 responses (49%). The factor analyses suggested 5 scales: Assessment of GP, Assessment of auxiliary staff, Accessibility, Patient enablement and Cooperation. All of these showed good properties. Cronbachs alpha ranged from 0.835 to 0.932, all item-total correlations were above 0,6 and test-retest correlations ranged from 0.720 to 0.884.

Conclusion

The results showed that we have developed a questionnaire with sound psychometric properties which can be offered to Norwegian GPs for measuring patient experiences locally.

Key message

- Developed a valid questionnaire for mesuring patient experiences with GPs

HealthPathways: a web-based resource for GPs to deliver evidenced-based coordinated care

Frances Quirk

S Mansfield[1], *F Quirk*[2], *M McLeod*[1], *S Gill*[2]
[1]Barwon Medicare Local, Geelong, Australia
[2]Barwon Health and Deakin University, Geelong Australia
Contact: frances.quirk@barwonhealth.org.au

Issue

General practitioners (GPs) are required to navigate increasingly complex health care systems and to provide care for patients with complex conditions requiring sophisticated assessments and treatments.

Solution

HealthPathways is a web-based resource designed to assist GPs deliver standardised evidenced-based care and coordinate care between health care providers. Each locally produced HealthPathways is developed in collaboration with local hospital specialists, GPs, and other primary care professionals. Clinical pathways for specific health conditions guide practitioners in managing patients' conditions including referral to local services. HealthPathways was developed in New Zealand, and 16 primary care services (Medicare Locals) across Australia are implementing HealthPathways.

The current project evaluated utilisation rates of HealthPathways in a primary care service in regional Australia that went live in August 2013. The service includes 358 GPs in 77 practices that provide care to approximately 270,000 people in the region. A questionnaire was sent to all GPs which assessed how frequently they used HealthPathways in the last 12 months and factors associated with use.

Results

129 GPs (36%) returned the questionnaire. Of these, 13% reported using HealthPathways more than 10 times in the last year and 60% reported having never or rarely used HealthPathways. GP registrars were more likely to have used HealthPathways than fully qualified GPs (p = .043). There was no association between frequency of use and the GP's age, gender, practice size and work hours. GPs who used HealthPathways reported the website was easy to access (77%), improved their knowledge of local services (72%), saved them time (51%), and improved their confidence in managing clinical problems (55%). The most common reasons for never or rarely using HealthPathways were 'I don't think to look at HealthPathways' (62%), and 'I don't know what HealthPathways is' (28%).

Lessons

GPs who use HealthPathways report important benefits such as improved confidence in managing clinical problems and improved knowledge of local services. However, many GPs were unaware that HealthPathways existed (despite promotion within the network), or found it difficult to incorporate HealthPathways into routine practice. It is possible that junior GPs experience more benefits using HealthPathways than experienced GPs.

Key messages

- Online locally developed clinical pathways increase GPs clinical confidence and awareness of local services
- Widespread adoption is hampered by lack of GP awareness and difficulty incorporating HealthPathways use into routine practice

Population density and risk of Amyotrophic Lateral Sclerosis: an Italian population-based study

Tommaso Filippini

T Filippini[1], *C Malagoli*[1], *F Violi*[1], *L Iacuzio*[1], *E Arcolin*[1], *N Fini*[2], *E Georgoulopoulou*[2], *J Mandrioli*[2], *M Vinceti*[1]
[1]Environmental, Genetic and Nutritional Epidemiology Research Center (CREAGEN), Department of Diagnostic, Clinical and Public Health Medicine, University of Modena and Reggio Emilia, Reggio Emilia, Italy
[2]Department of Neuroscience, St. Agostino-Estense Hospital, Modena, Italy
Contact: tommaso.filippini@unimore.it

Background

Amyotrophic lateral sclerosis (ALS) is a neurodegenerative disorder with still unknown aetiology. As an increased risk of ALS has been reported in areas with high population density, the aim of the study was to test this hypothesis in our population.

Methods

The study was performed in two Italian provinces, Modena and Reggio Emilia, using a case-control population-based design. We identified all newly-diagnosed ALS cases in this area from the Emilia-Romagna Region ALS Registry. We also randomly selected four controls for each case matched by sex, age, and province of residence. To asses municipal population density we used the 2001 national census data, available at the National Institute of Statistic (ISTAT). We carried out two data analysis, based on using quintile distribution and on a categorical one, using the Emilia-Romagna regional average density as cutpoint. We used logistic conditional regression analysis to compute odds ratio (ORs) and its 95% confidence interval (CI) according to population density.

Results

Overall, we identified 387 ALS cases (235 and 152 cases form Modena and Reggio Emilia respectively) and 1504 controls. ORs in increasing population density quintiles were 1.00, 0.64 (95% CI 0.44–0.93), 0.78 (0.57–1.07), 0.91 (0.66–1.27) and 0.49 (0.23–1.03), with P value for trend of 0.490. The second statistical analysis yielded an OR of 0.68 (0.49–0.93, p = 0.016). Comparable results were obtained using population data from previous national census.

Conclusions

In contrast with previous studies, in our population preliminary results seem to suggest a decreased risk of ALS for living in municipalities with higher population density. Further analyses is needed to improve the methodology used in the present study, such as the use of a greater spatial resolution to analyse the association between ALS incidence and population density.

Key message

- Preliminary results seem to suggest a decreased risk of ALS for living in municipalities with higher population density

Implementing interventions and policies targeting health behaviours: Facilitators and barriers

Saskia Muellmann

S Muellmann[1], B Steenbock[1], H Zeeb[1], G Roos[2], I de Bourdeaudhuij[3], J Brug[4], CR Pischke[5], on behalf of the DEDIPAC consortium
[1]Prevention and Evaluation, Leibniz-Institute for Prevention Research and Epidemiology – BIPS, Bremen, Germany
[2]Consumption and Economy, National Institute of Consumer Research, Oslo, Norway
[3]Department of Movement and Sport Sciences, Ghent University, Ghent, Belgium
[4]VU University Medical Center Amsterdam, Amsterdam, The Netherlands
[5]Prevention and Evaluation, Leibniz-Institute for Prevention Research and Epidemiology – BIPS, Bremen, Germany
Contact: poettgen@bips.uni-bremen.de

Background

The transfer of interventions to promote physical activity and a healthy diet after completion of effectiveness trials and the implementation of policies targeting these behaviors are processes not well understood. Qualitative case studies were conducted in five European countries to gain a better understanding of facilitators and barriers to a successful implementation and transfer. The study is being undertaken as part of the Determinants of Diet and Physical Activity Knowledge Hub (DEDIPAC KH).

Methods

The focus here is on preliminary results from two case studies conducted in Germany. Semi-structured interviews were conducted with seven practitioners and researchers. Interview transcripts were coded using a deductive approach. The first case study investigated an intervention promoting physical activity and a healthy diet in school children. The second case study examined a national policy aimed at improving the quality of school catering.

Results

Interviewees in the first case study described that an active participation of all relevant stakeholders at an early stage of intervention development and implementation and high-quality intervention materials were factors contributing to a successful implementation and transfer. Barriers included conflicting interests of stakeholders, lack of time among involved stakeholders to maintain the intervention, and a high documentation effort. Factors contributing to the success of the policy investigated in the second case study included staff expertise and close collaboration with stakeholders. Barriers included insufficient funding, dependence on political decisions, and stakeholders' lack of interest for topics related to a healthy diet.

Conclusions

Stakeholders' active involvement at an early stage of both, intervention and policy implementation, as well as a general interest in health topics and sufficient time appear to be important factors contributing to a successful implementation and transfer.

Key messages

- Stakeholders' involvement at an early stage of intervention and policy development contributes to a successful implementation
- Close collaboration with stakeholders and sufficient funding appear to contribute to the maintenance of policies

Lean healthcare: effects of an urgent surgical pathway on appropriateness and preoperative stay

Lorenzo Righi

S Briani[1], L Righi[2], GOALS team[3], N Nante[2,4]
[1]Medical Management, ''Le Scotte'' Teaching Hospital, Siena, Italy
[2]Post Graduate School of Public Health, University of Siena, Italy
[3]Lean Operative Team, ''Le Scotte'' Teaching Hospital, Siena, Italy
[4]Health Services Research Laboratory, University of Siena, Italy
Contact: lorenzo.righi@gmail.com

Lack of appropriateness of admissions in surgical units results in higher public costs and no advantage for patients. Prolonged preoperative hospital stay (PHS) is a risk factor for complications.

In Siena teaching hospital we tried to tackle these problems using ''Lean'', a participatory

approach to improve flow and eliminate waste, enhancing equity and value for patients.

In 2014 we reorganized the department of surgery focusing on intensity of care. 28 internal teams worked on different tasks. Every week, before and after reorganization, a meeting was held in the presence of Chief Medical Officer.

The emergency/urgent pathway, elective care pathway and short stay unit (maximum stay: five days; closed on weekend) were created. Admission processes were standardized. The scheduling of operating rooms (ORs) was centrally managed. Three ORs were dedicated to urgent/emergency surgery. Visual hospital tools were used. Nurses' role was redeveloped.

We evaluated data before and after reorganization: mean elective PHS in 2011–2014 (excluding day surgery cases) and, as indicators of appropriateness, the percentage of patients discharged from surgical units with a medical diagnosis related group (SUmedDRG) and the percentage of DRG with weight >2.5 (highDRG) in 2013 and 2014.

Mean PHS was 1.61, 1.53, 1.69 and 1.36 days in 2011, 2012, 2013 and 2014 respectively. The percentage of SUmedDRG decreased from 25.27% in 2013 to 18.55% in 2014 ($p < 0.001$) while the percentage of highDRG increased from 18.8% in 2013 to 19.8% in 2014 (p 0.004).

Lean participatory reorganization of surgical departments brought important results thanks to continuous collaboration of various professionals and personal commitment of hospital management. Our results can be replicated in mid-to-large-size hospitals.

Key messages

- Lean approach helps reducing unnecessary preoperative hospital stay and inappropriate admissions in surgical departments
- Separate elective and urgent surgical pathways lead to greater efficiency and more patient-centered care

'Environmental Surveillance of re-emerging poliovirus (PV) amid the international spread of wild-PV'

Laura Pellegrinelli

L Pellegrinelli[1], L Fiore[2], V Primache[1], S Binda[1]
[1]Department of Biomedical Sciences for Health; University of Milan; Milan, Italy
[2]National Centre for Immunobiological Research and Evaluation; Istituto Superiore di Sanità; Rome, Italy
Contact: laura.pellegrinelli@unimi.it

Background

On 5 May 2014, the World Health Organization (WHO) declared the international spread of wild poliovirus (PV) a Public Health Emergency of International Concern (PHEIC). The spread was caused by PV reintroduction in three major epidemiologic zones due to the migration: in central Asia (from Pakistan to Afghanistan), in the Middle East (from Syria to Iraq) and in central Africa (from Cameroon to Equatorial-Guinea). Although there aren't Temporary Recommendations in polio-free States, an increase in surveillance activities for PV are encouraged in order to detect any virus importations. While Acute Flaccid Paralysis (AFP) surveillance remains the gold-standard, Environmental Surveillance (ES) is a powerfully tool to detect PV in the absence of clinical cases, as recently shown in Israel. This activity had been set-up in Milan, Northern-Italy, as well as in other six Italian city, since 2006.

Methods

From January 2014 to march 2015, 84 wastewater sample were collected bimonthly at the intel of 3 wastewater treatment plants located in the city of Milan and serving a population between 100,000 and 300,000 inhabitants. ES was conducted according to WHO guidelines (WHO/V&B/03.03). As such, after the virus concentration by two-phase separation, PV and non-polio Enterovirus (NPEV) were isolated in RD and L20b cell lines for the detection of Enterovirus and PV, respectively.

Result

ES achieved the WHO performance indicator in the study period. According to the virological results none PV was isolated during ES but an high rate of NPEV was detected (57/84; 67.8%) without seasonal trend.

Conclusion

ES has a great impact in routine monitoring of PV circulation, especially in polio-free countries, as previously assessed. In Milan, none PV was detected in the study period, supported the Italian epidemiological data. An improvement in the ES should be able to cover an higher rate of Italian population and detect rapidly eventual PV reintroduction.

This study was supported by grants from Ministry of Health, Italy (Progetto CCM 2015–16)

Key messages

- Because ES is a powerfully tool to detect PV in the absence of polio cases, this activity needs to be both encourage and improve in Italy as a routinely approach in PV eradication program

The Italian Program for Surveillance of Acute Plant Protection Pesticide-Related Poisoning

Laura Settimi

L Settimi[1], F Davanzo[2], L Cossa[1], E Urbani[1], F Giordano[3]
[1]National Center for Epidemiology, Surveillance, and Health Promotion National Institute of Health (ISS), Rome, Italy;
[2]Poison Control Centre of Milan, Niguarda Cà Granda Hospital, Milan, Italy;
[3]Department of Public Health, ''La Sapienza'' University, Rome, Italy
Contact: laura.settimi@iss.it

Objectives

Regulation 2009/1185/EU on sustainable use of pesticides requires reporting from European Member States on plant protection pesticide (PPP) poisonous exposures. These data can provide information to identify emerging problems and populations at risk, support the development of preventive and regulatory measures and evaluate their effectiveness. In Italy, a surveillance of acute PPP-related poisonings (SAPReP), based on Poison Control Centres data, has been implemented since 2001. In this contribution are presented the main characteristics of cases exposed in Italy in 2007-2011.

Materials and Methods

series of cases identified by the National Poison Control Centre in Milan, reviewed and classified by the Italian National Institute of Health according to standard procedures.

Results

In 2007–2011, SAPReP identified 1862 cases of accidental PPP-related poisonings. Severity of poisoning was low in 84% of cases (n. 1570), moderate in 14% (n. 268), high in 1% (n. 23). One case of death was identified. About 50% of poisonings occurred at work, in agricultural settings, and 36% at home. Some 70% of exposures occurred between May and September. Insecticides/acaricides were responsible in 42% of poisonings, fungicides/bactericides in 16%, herbicides in 15% and soil sterilants in 13%. Five mass exposures were identified: two incidents were caused by off-site drift of metam sodium, a soil sterilant, and involved 86 and 103 by-standers, respectively; two incidents were caused by chlorpyrifos methyl, an organophosphate insecticide/acaricide (one occurred in a hospital, 10 cases; one occurred in agricultural setting, 20 agricultural workers); one incident was caused by phenthoate and involved 40 agricultural workers.

Comments

Surveillance based on data collected by poison control centres provides an important tool to identify emerging pesticide problems and associated risk factors. The observations available in Italy suggest that greater efforts are needed to prevent acute pesticide-related poisonings.

Key messages

- Surveillance of pesticide-related poisonings provides indication for preventive measures
- European legislation requires data on pesticide-related poisonings

Reviewing systematic reviews of suicide prevention effectiveness: evidence and challenges

Nadja Trygg

N Trygg, A Romqvist, R Winzer, L Mannheimer, A Månsdotter
Public Health Agency of Sweden, Sweden
Contact: nadja.trygg@folkhalsomyndigheten.se

Issue

Evidence-to-policy has become an increasingly debated topic within the field of public health, and the question of ''evidence'' is intensely debated. The Public Health Agency, as the main actor in developing a structure for evidence-informed suicide prevention, explored the scientific literature on interventions aiming at reducing suicide, suicide attempts and suicide ideation.

Problem

A scoping review of systematic reviews, including assessment of quality and equity, was carried out. The aim was to describe intervention effectiveness, target populations and outcome measures. Interventions belonging to the clinical domain were excluded. Literature searches started in September 2014 and the final analyses were done in April 2015.

Results

28 systematic reviews were included for analysis. Eight intervention categories were identified: 1) School based prevention 2) Restricting access to means and methods 3) Psychosocial prevention 4) Telephone based prevention 5) Education and awareness raising 6) Multicomponent interventions 7) Rules and guidelines to media and 8) other. The methodical and scientific quality of the reviews varied from low to medium to high, and equity aspects were seldom analyzed or discussed. Conclusions about intervention effectiveness differed between reviews and the evidence was overall regarded as being of low to medium quality.

Lessons

The results highlight both the challenges related to evaluation of public health interventions in general such as its complex characteristics, and those related to suicide prevention specifically, such as the difficulties of attaining sufficient effect size. It also raises questions about the use of systematic reviews in the evidence-to-policy process.

Key messages

- Systematic reviews on suicide prevention effectiveness are lacking the dimensions of equity. This is a concern particularly regarding the differences in suicide rate between men and women
- Evaluation of suicide prevention faces methodological challenges due to their complexity and low numbers of observed outcomes. Thus, evidence-informed policy needs to employ new innovative approaches

Overall and amenable mortality in Piedmont, Italy, 1980–2011

Teresa Dalla-Zuanna

T Dalla-Zuanna[1], M Dalmasso[2], A Amidei[3], R Gnav[4]
[1]Department of Molecular Medicine, University of Padova, Padova, Italy
[2]Epidemiology Unit, Regione Piemonte, Grugliasco (TO), ASL TO3, Italy
[3]Department of Public Health and Pediatrics, University of Torino, Torino, Italy
[4]Epidemiology Unit, Regione Piemonte, Grugliasco (TO), ASL TO3, Italy
Contact: teresa.dallazuanna@studenti.unipd.it

Background

Mortality amenable to health-care service has been defined as ''premature deaths that should not occur in the presence of timely and effective health care''. The study describes trends of overall and amenable mortality over the last 30 years in the local health units of Piedmont Region. By comparing these trends, it is possible to analyze intraregional variability in the performance of the health-care system.

Methods

Overall and amenable age-standardized mortality rates by gender and health unit were estimated for the population between 0 and 74 years, in Piedmont Region, for the period 1980–2011. The contribution of health care to the improvement of population health status was estimated by the ratio of the differences in amenable to the differences in all-cause mortality over the observation period. Data were obtained from the Italian National Institute of Statistics (Istat).

Results

Between 1980 and 2011, overall mortality in Piedmont has decreased from 425.8 to 205.5/100 000 among women, and from 891.6 to 390.7/100 000 among men. The rate of amenable mortality on overall mortality decreased from 40% to 32% among women, and from 33% to 21% among men. Furthermore, amenable mortality contributed to 47% of the overall mortality reduction among women and to 36% among men. Regional results show heterogeneity between health units, with differences higher among men than women. These local heterogeneities decreased over the three decades.

Conclusions

The contribution of amenable mortality to the overall mortality in Piedmont Region declined considerably in the last three decades. This decrease was not uniform among health units, probably due to different timing and way of introduction of healthcare innovations for prevention and care. These differences underline the need and the possibility of improvements in the performance of the health-care system, and should be further investigated by policy makers in order to improve the quality of assistance.

Key messages

- Amenable mortality is a rapid and overall indicator of the geographical and temporal differences in the performance of the health-care system within a Region
- Intraregional differences in amenable mortality can highlight critical points where there is room for improvement in the quality of assistance

Assessing benefits of daily physical activity in urban context

Stefano Capolongo

S Capolongo[1], A Rebecchi[1], V Di Gregori[2], M Buffoli[1], M Gola[1], A Oppio[3], C Signorelli[4]

[1]Deparment of Architecture, Built environment and Construction engineering (ABC) - Politecnico di Milano

[2]School of Public Health, Institute of Hygiene - University of Bologna

[3]Deparment of Architecture and Urban Studies (DAStU) - Politecnico di Milano

[4]Department of Biomedical Sciences, Biotechnology and Translational (S.Bi.Bi.T.) - University of Parma

Contact: stefano.capolongo@polimi.it

Many studies on public health are focused on the influences that built environment determinates on the population's health status.

In this context, possible correlations between urban environment and Physical Activity (PA), considered as the adoption of healthy lifestyles to prevent chronic diseases and metabolic disorders, such as stairs climbing, walking, and cycling. Furthermore, there are still few studies that correlate urban quality as an endpoint, including the environmental component, with psychological well-being and health, safety standards. Starting from a systematic review, the aim of the research is to present a population survey based on Evidence Based Public Health, to understand the acceptability and effectiveness of current interventions on built environment. Databases used were Pubmed, Cinhal, Ebsco, Proquest, Psychinfo, SSRN e Google Scholar. The research in progress is applied to an urban area of Milan, interested by the implementation of existing projects run by pedestrian and cycling network. The survey was administered through online and paper-based questionnaires composed by 25 items on attitudes to transports in the area and citizen medical conditions related. The systematic search has brought to 3 567 431 results which we selected for a qualitative analysis (n°44) based on quality and data reported. 10% of selected articles based on research question coerence were eliminated due to data underreporting and attrition bias. Nowadays in Italy, results gathered are poor, due to difficult linkage with epidemiological big data that tell about population health status over time. Further analyses are expected at the end of questionnaire collection.

Key message

- Evalutation of physical activity in Urban context

5.W.G. Poster walk: Evidence of public health innovation

Pharmacy-based immunization in France: visions of pharmacist, of physician and of patient

Marie-Pierre Sauvant-Rochat

C Nouvellet, MP Sauvant-Rochat

University of Auvergne, Faculty of Pharmacy, EA 4681-PEPRADE, Department of Public Health and Environmental Health, 63001 Clermont-Ferrand, France

Contact: m-pierre.sauvant-rochat@udamail.fr

Improved vaccination rates of adults has become worldwide a public health issue. In this context, the pharmacy-based adult vaccinations practice has been developed in Portugal, the UK, Ireland, Switzerland, Italy, Canada and the United States. To date, in France, the subject is under debate.

In this context, a cross-sectional study was initiated to assess knowledge about immunization and commitment of 78 community pharmacists (41.1 +/- 13.2 years old) to the vaccination monitoring and / or the administration of vaccines at the pharmacy. Concurrently, an opinion survey has raised the vision of 78 physicians (47.1 +/- 11.9 years old) and 112 patients (43.4 +/- 15.7 years old) living in the same geographical area. Data collection was performed using standardized questionnaires.

Among the pharmacists, only 48.7% (38/78) are ready to administrate vaccines, and only after specific training and against remuneration. However, 51.3% (40/78) are willing to organize their pharmacy to allow nurses to achieve immunization of patients in the pharmacy.

The majority of physicians consider that vaccination is strictly a medical procedure. Only 14.1% (11/78) consider that the pharmacist may be able to practice it, and 33.3% (26/78) consider that vaccination in the pharmacy by a nurse is possible.

For patients interviewed, information about vaccination is issued mainly by their physicians (83.8% (93/111)) and to a lesser extent by their pharmacists (21.6% (24/111)). However, for 53.6% (60/112), the pharmacist can be the manager of the electronic vaccination record and for 63.4% (71/112) the pharmacist can administrate the vaccines.

To improve vaccination rates in France, the involvement of pharmacists in promoting the vaccination, in monitoring the vaccination record of patients and in administrating the vaccine is an option, especially from the point-of-view of patients. Reluctance still exist among pharmacists, and an opposition is also visible among the physicians interviewed.

Key messages

- French community pharmacists are ready to promote vaccination and to monitore the vaccination record of patients, but not to administrate the vaccines.
- Pharmacy-based vaccination is well accepted by patients

Emergency Department crowding and access block: is Lean Thinking a smart answer? A systematic review

Stefano Marventano

M Tanzariello[1], *S Marventano*[2], *S Bucci*[1], *AC De Leva*[1], *W Ricciardi*[1], *AG de Belvis*[1]

[1]Section of Hygiene – Institute of Public Health, Faculty of Medicine, Università Cattolica del Sacro Cuore, Rome, Italy

[2]Department G.F. Ingrassia, Section of Hygiene and Public Health, University of Catania, Italy

Contact: stefanomarv@gmail.com

Introduction

Emergency Departments (ED) all over the world are challenged with crowding, costs containment, excessive waiting times, and appropriateness of admissions. Lean thinking introduced in healthcare as a quality improvement method, is generally adopted to better integrate healthcare delivery. Our review aims to provide synthesis of current literature focused on how Lean thinking principles and tools, applied in an ED, can figure out the problem of overcrowding and hospital admission.

Methods

We selected primary studies that considered the application of Lean principles and tools in EDs and reported at least one outcome (i.e. LOS, patient volume, patient satisfaction, waiting times for first visit, waiting times for diagnostic results and left without being seen rate). PubMed, Scopus, CINAHL, EconLit, NHS Economic Evaluation Database, Business Sources Complete, Health Technology Assessment were searched. Hand searching reference lists from full-text articles was performed. Two reviews independently assessed the studies and extracted data. Disagreement were solved through discussion to reach consensus.

Results

Fourteen out of fifteen were before-and-after studies and one was a retrospective cohort study. The main intervention was on the management of patient flow, but also structural changes, computer systems implantation, changes in roles and responsibilities were applied. Results of Lean interventions showed an increased patients volume, a decreased length of stay, a cost reduction and an increased patients satisfaction. However, these results diminished or were not significant when compared with control sites.

Conclusion

The results showed that before a large-scale implementation further studies are needed to evaluate the true efficiency of Lean interventions in health care performance improvement. Moreover the integration between primary care, EDs and hospitals could be taken into account to effectively face the problem of the appropriateness in admissions.

Key messages

- Lean thinking leads to improvements in quality of healthcare delivered by EDs in terms of effectiveness, efficiency and patients satisfaction
- The integration between primary care, EDs and hospitals could have a main role to face the problem of the appropriateness in admission as primary care is directly involved in care demand management

Experimenting with drugs as predictor of unprotected sex among youth in Russia, Latvia and Poland

Maia Rusakova

V Odinokova[1], *E Dompalma-Linuza*[2], *A Karnite*[3], *A Skonieczna*[4], *KP Silakowski*[4], *T Malkuszewski*[4], *I Vyshemirskaya*[5], *V Osipenko*[5], *O Kolpakova*[1], *M Rusakova*[1]

[1]NGO Stellit, The Sociological Institute of the Russian Academy of Sciences, Saint-Petersburg, Russia

[2]Baltic HIV Association, Riga, Latvia

[3]Riga Stradins University, Riga, Latvia

[4]Social AIDS Committee, Warsaw, Poland

[5]NGO Young Leader's Army, Kaliningrad, Russia

Contact: veronika.odinokova@gmail.com

Background

We aimed to identify HIV prevention gaps among young people who are considered to be ''young people at high risk of getting HIV and associated infections'' in Russia, Latvia and Poland. In particular, we wanted to know whether the drug experimentation (defined as use of any drug for the first time during last 12 months) leads to inconsistent condom use.

Methods

Young people from Saint-Petersburg and Kaliningrad (Russia), Riga (Latvia) and Warsaw (Poland) ($N = 1596$; 37,5% males, 62,3% females) aged 15–23 were enrolled in vocational schools, lyceums and colleges, outpatient dependency treatment clinic, high school for students with problematic behavior, youth fostering center, and family support center during Spring 2014. Interviews included socio-demographic background, substance use and sexual behavior.

Results

Any drug use during last 12 months was reported by 22%, and drug experimentation was reported by 16% of study population; 56% have ever had sex; mean age of the first sex was 15 years old; during last 12 months 19% had sex with ''casual'' partner and 32% had sex with ''regular'' partner. Unprotected sex (nonuse of condoms at last sex) was reported by 26.4% of sexually active youth. In multiple logistic regression, females ($p \leq 0.05$), youth aged 18+ ($p \leq 0.01$), those who used any drug for the first time during last 12 months ($p \leq 0.01$) and had sex contact with ''regular'' partner ($p \leq 0.001$) were more likely to report unprotected sex. HIV knowledge and participation in HIV prevention programs were not significant predictors of unprotected sex.

Conclusion

Drug experimentation and unprotected sex are common among our target group. Experimenting with drugs is a significant predictor of unprotected sex. It is important to keep HIV from entering the sexual networks of youth. Programs aimed to increase condom use among young people should provide additional assistance to youth experimenting with drugs.

Key messages

- Experimenting with drugs is a significant predictor of unprotected sex
- Programs aimed to increase condom use among young people should provide additional assistance to youth experimenting with drugs

Trends in injury-related hospitalizations from 2002 to 2012 in a Mexican rural reference hospital

Joel Monárrez-Espino

J Monárrez-Espino[1,2], *A De la Maza Sthal*[1], *LM Tejada-Tayabas*[1], *A Balleza-Carreón*[3], *L LaflammeL*[1]

[1]Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden;

[2]Master Program in Public Health, San Luis Potosi Autonomous University, San Luis Potosí, México;

[3]Guachochi Rural Hospital No. 26, Mexican Institute of Social Security, Guachochi, Chihuahua, México

Contact: joel.monarrez-espino@ki.se

Background

There is little data on the extent and distribution of injuries in rural areas of Mexico. Aim: To compare injury-related hospitalizations between 2002 and 2012 at a rural reference hospital of northern Mexico focusing on differences between indigenous (IP) and non-indigenous (NIP) patients.

Methods

Retrospective observational study based on the review of records from patients hospitalized with injury diagnoses at Guachochi Hospital. Data, including the patient's ethnicity, sex, age, hospital duration, surgical procedures, complications, and discharge outcome was extracted from discharge sheets and clinical files. Specific injury data included main diagnosis, injury mechanism, and body part affected using ICD-10 codes. Hospitalization patterns were stratified by year and ethnicity. Logistic regression was used to determine the probability of being hospitalized for >1 day and to be referred for specialized care.

Results

Injury-related hospitalization rate increased by 1.3/100 inpatients from 2002 to 2012, and mortality from 0.4 to 3.1%, respectively; the proportion of NIP hospitalized also increased 4.5%. Men accounted for two-thirds of all inpatients regardless of ethnicity. Weapon involvement doubled from 16.6 to 33.6%. Almost half of all injured patients in 2012 were victims of some kind of interpersonal violence (contact with knife 22.9%, firearm discharge 10.8%, bodily force assault 12.7%). IP had 2.7 higher adjusted OR of being hospitalized for >1 day in 2002 (95% CI 1.2–5.7), though the gap was reduced to 1.9 (1.1–3.5) in 2012. When using NIP from 2012 as reference, IP from 2012 had a similar chance of being referred (0.67; 0.12–3.7), but patients from 2002 had a far larger referral chance ($p < 0.001$) regardless of ethnicity.

Conclusion

Injury hospitalization patterns are changing, possibly due to the drug-traffic violence affecting the region since 2008. The gap seen in 2002 between IP and NIP closed in 2012 suggesting more similar risks factors.

Key messages

- Indigenous peoples continue to have a higher chance of being hospitalized due to an injury, but the gap with the non-indigenous population seems to be closing
- Injury hospitalization patterns changed from 2002 to 2012 possibly due to the drug-traffic violence affecting the region since 2008

Clinical training of doctors to reduce false positive diagnoses of pediatric urinary tract infections

Joel Monárrez-Espino

CD Urrutia-Herrera[1], F Greiner[2], MA Cárdenas-Dimaté[2], J Monárrez-Espino[1,2]
[1]Master Program in Public Health, San Luis Potosi Autonomous University, San Luis Potosí, Mexico
[2]Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden
Contact: joel.monarrez-espino@ki.se

Background

Presumptive clinical diagnosis of pediatric urinary tract infections (UTI) remains in practice in many developing countries in spite its limited accuracy. While better methods can be implemented in resource-limited settings, training doctors could potentially reduce diagnostic errors. Aim: To assess whether training primary care physicians can reduce false positive diagnoses.

Methods

A non-randomized pragmatic trial was conducted in six medical units. Each study group included doctors from two units. Doctors in the first (G9, n = 14) and second (G20, n = 14) groups received 9 and 20 hours of clinical training, respectively, while those in the control (G0, n = 17) received nothing. G9 consisted of three sessions lasting 3 h each, with one per week over three consecutive weeks, and G20 spread over five weeks with two 2 h sessions per week. Sessions were led by an expert pediatrician covering relevant topics including sings/symptoms such as fever of unknown origin, urinary urgency, hematuria, dysuria, fetid urine, and suprapubic pain. Children between 2 months and 9 years were included (G0 = 41, G9 = 44, G20 = 49). A confirmatory urine culture was obtained when a UTI was clinically diagnosed. The main effect measure was the difference in the proportions of accurate positive clinical diagnoses between the trained groups and the control. Odds ratios from logistic regression were computed to estimate the chance of correctly diagnosing a UTI adjusting by physicians' sex, age, experience years, postgraduate education, and pre-training knowledge.

Results

The proportion of accurate diagnoses was 39, 27.3 and 32.7% in the G0, G9 and G20, respectively. Doctors trained for 9 or 20 h had a non-significantly lower chance of attaining the correct diagnosis (OR;95% CI, G9 0.57;0.21–1.5, G20 0.57;0.22–1.5).

Conclusion

Training primary health care physicians did not reduce false positive diagnoses of pediatric UTIs. Efforts should be made to implement more accurate methods (e.g. urine culture).

Key messages

- Clinical training of primary health care physicians does not reduce false positive diagnoses of pediatric urinary tract infections
- Efforts should be made to implement more accurate methods to diagnose pediatric urinary tract infections in resource-limited settings

Assessing universities' impact on global health: a comparative study of 36 German universities

Léonie Karduck

L Karduck[1,2], AL Behnke[3,4], C Gabrysch[3,4], A Kasper[5,4], N Lennartz[6,4], P von Philipsborn[7,2], SK Poppinga[3,4], D Schmidt[3,4], M Schmidt[3,4], ML Schmieding[3,2], L Schulz[3,4], C Schürmann[8,2], L Speer[3,4], S Strube[5,4]
[1]Rheinisch-Westfälische Technische Hochschule Aachen, Faculty of Medicine, Aachen, Germany
[2]German Medical Students' Association (bvmd,Germany
[3]
[4]Universities Allied for Essential Medicines Germany e.V. (UAEM), Germany
[5]Universität Leipzig, Faculty of Medicine, Leipzig, Germany
[6]Albert-Ludwigs-Universität Freiburg im Breisgau, Faculty of Medicine, Freiburg, Germany
[7]Technische Universität München, Faculty of Medicine, München, Germany
[8]Medizinische Hochschule Hannover, Hannover, Germany
Contact: leoniekarduck@posteo.de

Background

Universities provide important contributions to global health. A Global Health Scorecard has been created by the international student network Universities Allied for Essential Medicines to systematically assess and monitor such contributions of US, Canadian and British universities. We propose a scorecard adapted to the German academic context and apply it to 36 public universities with medical schools.

Methods

We use three criteria to assess universities: i) innovation: investment in research and development addressing neglected health needs of low and middle income countries; ii) access: licensing frameworks promoting access to medical innovations worldwide; iii) empowerment: education and awareness-raising of medical students and other health professionals in the field of global health. These criteria have been operationalized with three to five different indicators which can be assessed with quantitative and / or qualitative data publicly available or to be obtained from the respective universities.

Results

Preliminary results indicate considerable variations between universities and across countries, with German universities generally lagging behind their US, Canadian and British counterparts. While German universities make notable contributions to research and development on poverty-related and neglected diseases, considerable room for improvement remains in global health research more generally, and in promoting access and empowerment.

Conclusions

Universities play an important role in global health by fostering innovation, by promoting access to medical innovations, and by raising awareness for global health challenges. However, many universities still miss out key opportunities to strengthen their impact in global health.

Key messages

- Universities contribute to global health through research, by improving access to innovations and by educating and empowering students
- These contributions should be systematically assessed, ranked and monitored

Urban neighborhood walkability analysis

Daniela D'Alessandro

D D'Alessandro, L Appolloni, A Cappuccitti
Dept. of Civil Building and Environmental Engineering, Sapienza University of Rome - Italy
Contact: daniela.dalessandro@uniroma1.it

Background

Several authors have studied the link between built environment and physical activity, defining specific walkability indices (WI); these tools are mainly based on archival data sets, analyzed with GIS, which do not consider the environmental quality of the context. Aim of this study is to design a method to evaluate the walkability of an urban neighborhood, based on direct observation.

Method

A tool, called the Walking Suitability Index of the Territory (T-WSI) has been developed. It measures the walkability of each street of an environmental area. It includes 12 weighted indicators subdivided into 4 categories: practicability, safety, urbanity, pleasurableness. A value is assigned to each indicator according to the following scale of values: excellent (100), good (75), poor (35) and bad (0). Data collected in each street are inserted in an algoritm to perform weighted sums and to aggregate indicators, up to define the final index, in which the length of each street is also considered. The tool has been applied in Rieti, a small city (47,153 inhabitans) of Central Italy, involving 79% of the city's environmental areas (19). Average scores (min-max) are analysed.

Results

The overall average T-WSI was 48.5 (25.2–61.2), mediocre values of the adopted scale, highlighting gaps in the design for pedestrian use of public spaces. Although the streets showed good average scores for the pleasurableness (62.8) and the practicability (61.6), safety obtained the worst average scores (32.2), mainly for the low score obtained by the following indicators: protection from vehicle speed (20.9), inadequate crossings (32.9) and insufficient lighting (42.6).

Conclusions

The T-WSI – method, easy to use, sensible and reproducible - allowed to underline several streets' criticalities that could hinder walkability. Therefore it could be a good basis to support public administrations in the decision-making related to health policy and local development to encourage physical activity.

Key messages

- To compare objectively environmental areas in terms of walkability
- To support public administrations in the decision-making related to health policy and local development to encourage physical activity

The European Chemical Emergency Network (ECHEMNET)

Charlotte Hague

C Hague[1], R Orford[1], A Schaper[2], L Hall[3], J Roelofs[3], P Morgenstern[3], AG Nyberg[4], P Leffler[4], E Wigenstam[4], A Plamboeck[4], J Trnka[4], M del Carmen García Cazalilla[5], J Ocaña García-Donas[5], R Duarte-Davidson[1]
[1]Centre for Radiation, Chemical and Environmental Hazards, Public Health England, Chilton, UK
[2]GIZ-Nord Poisons Centre, University Medical Center Göttingen Georg August Universität, Göttingen, Germany
[3]National Institute for Public Health and the Environment (RIVM), Centre for Environmental Safety and Security, Bilthoven, Netherlands
[4]Swedish Defence Research Agency (FOI), CBRN Defence and Security, Umeå, Sweden
[5]Empresa Pública de Emergencias Sanitarias (EPES), Healthcare Delivery Management Dept, Malaga, Spain
Contact: charlotte.hague@phe.gov.uk

The objective of the presentation is to discuss European level alerting, assessment and response to serious cross border chemical public health threats. The principal aim of the, PHE led collaborative EU co-funded, ECHEMNET project is to support the European Commission and Member States in the implementation of the EU Decision on serious cross border threats to health (1082/EU/2013) and the WHO International Health Regulations for chemicals.

This is being achieved by: developing and testing a well-defined and robust mechanism to provide a rapid risk assessment for emerging chemical threats; improving intersectoral preparedness; developing a network of toxicological and public health experts to aid with the acute phase response to incidents and; supporting the roll-out of the Rapid Alerting System for Chemical health threats (RASCHEM) risk assessment platform.

The EU Decision on serious cross border threats to health identifies a need to provide authoritative, transparent and independent risk assessments for the European Commission and EU Member States to ensure a coordinated response to serious health threats. ECHEMNET has developed a chemical focussed rapid risk assessment (RRA) which has been tested and commented on by end-users. Exercising and engaging with future end-users and stakeholders has been undertaken to ensure that the guidance documents and working mechanisms are developed to be robust and fit or purpose. A framework of required skills has also been developed enabling recruitment of appropriate independent experts to the network that can provide support in the acute phase of an emerging threat. The expert network will respond in 'pilot mode' to emerging transboundary chemical incidents during the term of the project to support the coordinated EU level response.

This work was co-funded by the European Commission through Second EU Health Framework (ECHEMNET #20121101)

Key messages

- The ECHEMNET project supports the European Commission and Member States in the implementation of the EU Decision on serious cross border threats to health (1082/EU/2013)
- Identifying and recruiting new system users and experts in different EU Members States is key to the success of ECHEMNET outputs

Key messages from the European Commission's workshop on seasonal influenza vaccination

Maria Ganczak

Maria Ganczak
Department of Public Health, Pomeranian Medical University, Poland
Contact: ganczak2@wp.pl

Influenza vaccination coverage is suboptimal in most EU countries. On behalf of the European Commission, Public Health England organised 30.04.2015 in Luxembourg the workshop "High-level Hearing on the Implementation of the Council Recommendation (CR) on Seasonal Influenza Vaccination".

Objective

to identify concrete measures to increase influenza vaccination coverage rates on the basis of challenges identified in the report on the implementation of the CR on seasonal influenza vaccination.

Results

Aiming to enhance the understanding of the benefits of influenza immunisation the presenters concentrated on the impact of vaccination programs with regard to lowering the public health (reduction of disease severity) and economic (cost-effectiveness) burden, emphasising the herd protection and the impact of childhood influenza vaccination (described by a UK study). To identify measures for improvement of the existing situation presenters addressed policy ownership and cooperation structures to coordinate planning, implementation and evaluation of influenza vaccination programs at the national level and discussed the role of national immunisation technical advisory groups and reasons for differences in national recommendations, the use of alternative forms of vaccine supply (e.g. flu vaccination in pharmacies, like in Portugal) and the importance of integrated communication strategies. The new EMA guidelines on influenza vaccines and the WHO initiative ''Tailoring Immunisation Programs'' to increase the uptake were also presented.

Conclusions

The main target of the CR to reach a seasonal influenza vaccination coverage of 75% is not fulfilled, however, monitoring of uptake is not being reported for many target groups. Reasons for non-vaccination are complex and multiple. Free of charge vaccination for target groups, with personal invitation, central coordination of the immunisation program, and GP's involvement are potential drivers to increase vaccination coverage.

Key messages

- European Commission workshop on seasonal influenza vaccination was successful in identifying measures for improvement in the vaccination coverage rates
- Comprehensive understanding of the consequences of influenza and the benefits of immunisation among health care professionals and on the community level is needed to increase vaccination coverage

Infant Mortality trend in Europe: socio-economic determinants

Gabriella Prisco

G Prisco[1], *R Pennazio*[1], *A Serafini*[1], *C Russo*[1], *N Nante*[1,2]
[1]Post Graduate School of Public Health, University of Siena, Italy
[2]Health Services Research Laboratory, University of Siena, Italy
Contact: gabriellaprisco@alice.it

Background

Infant mortality (IM) is a historical indicator but still widely used to outline the child and general population health. Several papers analyzed the effect of socio-economic factors on the IM rates, but the role of them remains controversial. Some recent studies have questioned the association between income inequality, measured as Gini index (GI), and IM. Our study aims to analyze: 1)IM rates in the European Union; 2)the impact of significant socio-economic determinants on IM rates.

Methods

The data for the 28 Member Countries in the period 2005 to 2012 were collected by the Statistical Office of the European Union (Eurostat). The selected variables were: IM rates (number of infant deaths under one year for every 1.000 live births); the female unemployment percentage; GI, with a scale from 0 (perfect equality) to 100 (maximal inequality); Gross Domestic Product (GDP) per-capita; total and female educational levels. The relationship between the MI and the socio economic variables was analyzed with the technique of panel data with random effects model. The analysis of the trend was performed with the Cuzick's test.

Results

The lowest annual average IM rates were recorded in the Scandinavian Countries with values of 2.5 (Sweden) and 2.6 (Finland), while the highest in Romania. The EU average IM rate significantly decreased rising from a value of 5,2 (2005) to 4,0 (2012). The socio-economic variables showing a strong association with the IM were: the GDP (coef. = −0,12; p = 0,002) and the percentage of women with low education levels (coef. = 1.35; p = 0.0069). GI was not significantly associated with MI.

Conclusions

Despite the European average IM rate has registered a decreasing trend, there is considerable variability among the Member States. in line with the recent literature, our findings suggest that income inequality has not a direct effect on IM, while the reduction in mortality is related to an increase of GDP and of female education level.

Key messages

- Despite the decreasing trend of infant mortality rates, there is a great variability among European Countries
- In European Countries, Income inequality is not associated with infant mortality rates while the reduction in mortality is related to an increase of GDP and of female education level

Policy development in national regionalization of public health services – a systematic review

Silvia Florescu

S Florescu, M Ciutan, C Sasu, IL Firuleasa, CM Mihaescu-Pintia, C Vladescu
National School of Public Health, Management and Professional Development, Bucharest, Romania
Contact: florescu.silvia@gmail.com

Background

During last decades, regionalization has been implemented in different countries as an appropriate alternative for providing the essential public health (PH) services. Although many countries have reported the organization, effectiveness and expenditures of PH services delivered by regions, it is not always very clear how the regionalization process of PH services has been initiated and it has progressed.

Objectives

To systematically review what are the regulations, governance models, structures, type of partnerships, assumed mission, way for sharing responsibility used whenever regionalization of PH services was implemented. Methods Textual and opinion papers exploring the health systems or services functioning as regionalized during the last 30 years - government reports, expert opinion, discussion, position or policy papers, projects reports and other forms of text published in English, French and Spanish languages - were included. Relied on a three steps searching strategy, by electronic searches of medical and social science databases, published and unpublished articles since 1980 up to 2014 have been identified. Textual papers were assessed by two independent reviewers for authenticity and textual data was extracted using standardized critical appraisal and data extraction tools. Wherever possible, textual papers were pooled. The process of meta-synthesis involved the extraction of conclusions, which were grouped into categories, then analyzed to generate synthesized findings.

Results

Out of over 300 papers, 45 text and opinion papers have met the inclusion criteria. Ten syntheses were derived with key themes related to regionalization laws, PH professional training, main structures of coordination and integration, task and responsibility shifting, communication, patient and community empowerment, support from central structures, networks, partnerships with providers and community organizations.

Conclusions

A combination of these 10 essential factors, could define an appropriate regionalization model, tailored for similar conditions.

Key message

- Policy development related to the regionalization of public health services is useful for the countries intending to adopt different levels and models of regionalization

Public Private Partnership in Hospital. Looking for improvements in efficiency of public investments

Maria Lucia Specchia

ML Specchia[1], *V Di Gregorio*[1], *AM Ferriero*[1], *T Petitti*[2], *A Rosolia*[2], *W Ricciardi*[1], *G Damiani*[1]
[1]Department of Public Health, Università Cattolica del Sacro Cuore, Rome, Italy
[2]Public Health Research and Statistics Unit, Università Campus Bio-Medico, Rome, Italy
Contact: marialucia.specchia@rm.unicatt.it

Background

Public Private Partnerships (PPPs) are contractual agreements between government agencies and private sector, aimed at improving the efficiency of public investments. PPPs have increasingly been adopted in public health to design, build, finance, maintain and operate hospitals. This study was aimed to perform a systematic review and a time trend analysis of published PPP hospital experiences around the world.

Methods

A systematic literature search was carried out, from 1990 to 2014, by a specific search algorithm through PubMed and Scopus databases and a snowball search. Resulting studies were selected by two reviewers independently according to title, abstract and full text. Inclusion criteria were a PPP applicative experience and a hospital setting. The trend of interest in the scientific community was analyzed by calculating the 5-year average annual publication rate. PRISMA guidelines were adopted for reporting the study results.

Results

Out of the 519 retrieved studies, 158 were finally selected. Of the latter, 73(46.2%) described experiences from Europe (37 from the UK), 36(22.8%) from Asia (15 from India), 35(22.2%) from North America, 16(10.1%) from Africa, 9(5.7%) from Australia, 6(3.8%) from Latin America. The annual publication average rate was 10.2(range 0–23). The 5-year average annual publication rate steadily increased from 0.4 in the years 1990–1994 to 18.8 in 2010–2014 ($p < 0.01$), with a steeper increase since 2005–2009 and a peak of 23 in 2014.

Conclusions

PPP in hospital setting draws increasing attention from scientific community. Despite a wider adoption in the UK, India and North America, PPP recently spread around the world. The observed time trend could also be related to constraints from the worldwide socio-economic crisis. A further PPP diffusion in public health is foreseeable. PPP outcomes in different economic contexts will highlight its efficacy in hospital management and its potential role in the future economic framework.

Key messages

- The scientific community is showing an increasing interest towards PPP adoption and outcomes as a result of PPP spreading experiences also relatable to socio-economic constraints
- The adoption of PPP in hospital settings could represent a useful strategy enabling governments to meet their objectives more effectively by improving the efficiency of public investments

Do antenatal education classes decrease use of epidural analgesia during labour? – a Danish RCT

Carina Brixval

CS Brixval, LC Thygesen, SF Axelsen, P Due, V Koushede
National Institute of Public Health, University of Southern Denmark, Denmark
Contact: cabr@niph.dk

Background

Epidural analgesia is widely used as pain relief during labour but has negative side effects, such as prolonged labour and increased risk of obstetric interventions. Antenatal education in small groups may increase trust in own ability to cope at home in the early stages of labour, and reduce fear during birth which in turn may decrease use of pain relief. Few randomised trials have examined the effect of attending antenatal education in small groups on use of epidural analgesia and among these conclusions are conflicting. The objective of this study was therefore to examine the effect of an antenatal education program in small classes on use of epidural analgesia.

Methods

Data from the NEWBORN trial were used. A total of 1766 women from the Copenhagen area, Denmark were randomized to participate in either antenatal education in small groups or standard care. Data were analysed according to the 'intention-to-treat' principle. Frequency of use of epidural analgesia was compared between intervention groups using the chi-square test. Unadjusted logistic regression analysis as well as analyses adjusted for the protocol specified stratification variables: parity and vulnerability were carried out.

Results

At the time of writing the participants' intervention category is blinded to the researchers and therefore results are presented blinded in this abstract. The blinding will be revealed within the next month and unblinded results can be presented at the conference. Frequency of epidural analgesia was 30.9 % in intervention category X and 29.1 % in intervention category Y ($\chi2 = 0.67$, $p = 0.41$).

Conclusion

No differences in frequency of use of epidural analgesia were seen between intervention groups. Hence, the NEWBORN program had no effect on use of epidural analgesia in this trial. Recommendations on whether to implement the NEWBORN program in a clinical setting also depend upon the trial effect on psycho-social outcomes which will be analysed in near future.

Key messages

- No effect of antenatal education in small groups on use of epidural analgesia as pain relief during labour is seen in this Danish randomized trial
- Recommendations on whether to implement the NEWBORN program in a clinical setting requires further research on effect on other outcomes relevant to birth and parenthood

Impact of policy game on insight and attitude to inter sectoral policy processes - EU country cases

Cathrine Juel Lau

CJ Lau[1], C Glümer[1], HPEM Spitters[2], P Sandu[3], D Rus[3], L Eklund Karlsson[4], LAM van de Goor[2]
[1]Research Centre for Prevention and Health, Capital Region of Denmark, Denmark
[2]Tranzo, Tilburg University, Tilburg, The Netherlands
[3]Center for Health Policy and Public Health, Institute for Social Research, College of Political, Administrative and Communication Sciences, Babes-Bolyai University, Cluj-Napoca, Romania
[4]Unit for Health Promotion Research, University of Southern Denmark, Esbjerg, Denmark
Contact: cathrine.juel.lau@regionh.dk

Background

A policy game is a structured simulated role-play dealing with highly complex decision-making in real life network settings. Its impact on health enhancing physical activity (HEPA) policy making is unexplored. We aim to explore if an internationally developed and pilot tested policy game change insight and attitude towards inter sectoral policy processes, such as the organization network, collaboration, and use of knowledge in HEPA policy making in three European countries.

Methods

The Netherlands (NL), Denmark (DK) and Romania (RO), partners in the REPOPA program, have carried out a policy game at local level, with 6 months intervals, including 18–19 policy makers in each game. Data was collected using a structured questionnaire one week after implementation of the games. Participants were asked if the game had changed their insight or attitude.

Results

Response rate was 83%, 89% and 89% in NL, DK and RO respectively. Across countries the majority of participants, $\geq$ 60%, enhanced their understanding of the local HEPA policy process, the roles in the organization network, and how stakeholders can collaborate as result of the game. Most participants perceived change in insight of the collaboration process in NL (100%). The fraction of participants who enhanced their insight to leadership aspects of their network varied across aspects of leadership and across countries, from 14% in NL to 86% in RO. The fraction of participants being more positive towards use of knowledge varied across countries, 25% in NL to 75% in DK. Across countries the majority of participants, 67–70%, stressed' importance of collaboration' as the main learning experience.

Conclusion

The policy game has potential to increase insight to HEPA policy process, including stakeholder roles, and attitude towards collaboration and use of knowledge. Differences between countries may be a result of diversity in potential for change in game participant groups and game processes.

Key message

- The policy game encountered changes at the domains 'organization network', 'collaboration', 'leadership' and 'use of knowledge', with differences between countries

Expert validation and reliability of a checklist for integrated public health policy

Janneke Harting

L Tubbing[1], K Stronks[1], I Storm[2], M Bekker[3], J Harting[1]
[1]Department of Public Health, AMC University of Amsterdam, Amsterdam, The Netherlands,
[2]RIVM Centre for Health and Society, Bilthoven, The Netherlands,
[3]Department of Public Administration and Political Science, Radboud University Nijmegen, Nijmegen, The Netherlands),
Contact: j.harting@amc.uva.nl

Background

Integrated public health policy (IPHP) is high on the agenda but tends to remain intangible. We developed a 18-item checklist to assess core elements of IPHP in health policy briefs (Part I: health situation, determinants, policy instruments, stakeholders and consistency) and policy briefs of other sectors (Part II: position of health and synergy between policies). This study examined the checklist's expert validity and interrater reliability.

Methods

In a two-round Delphi Study, 31 Dutch IPHP experts had to rate individual items on content validity (1 = no aspect of IPHP; 4 = aspect of IPHP), and both checklist parts and the entire checklist on completeness (1 = no, items missing; 2 = yes, items overlap; 3 = yes). Criterion for content validity was a 70% positive score. Next, in Field Test, four IPHP experts pairwise pilot-tested the revised 14-item checklist on a total of 16 selected policy briefs of four Dutch municipalities. Krippendorf's Alpha was computed to determine interrater reliability. Alpha .60 was considered good reliability.

Results

The Delphi Study was completed by 22 and 18 experts, respectively. Average content validity increased from 83% to 91% for Part I, and from 88% to 92% for Part II. The concept was sufficiently covered according to 55% and 89% of the experts. Items on policy consistency were seen as not typical for IPHP and removed. In the Field Test, interrater agreement for Part I ranged between −.05 (ordinal items) and .32 (binary items). For Part II, agreement scores ranged between .49 (ordinal items) and .57 (nominal items). Interrater agreement varied between pairs of raters, with mean scores indicating structural differences.

Conclusion

Dutch experts agreed on core elements of IPHP to be assessed in local policy briefs. Despite its high expert validity, the checklist had insufficient interrater reliability for large-scale use. We therefore recommend to limit the use of the checklist as a reflection instrument only.

Key messages

- Dutch experts noticeably agree on the core elements of integrated public health policy that should be assessed in order to identify the policy's manifestation and progress in local policy briefs
- In assessing integrated public health policy, experts appear to apply individual standards rather than a common benchmark due to multi-interpretability of both checklists and policy briefs

6.W.C. Poster walk: Migrant and ethnic minority health

What do data about the countries of birth of women giving birth in Europe tell us about migration?

Alison Macfarlane

AJ Macfarlane[1], N Dattani[1], J Zeitlin[2], for the Euro-Peristat Collaboration
[1]City University London, London, UK
[2]INSERM, Obstetrical, Perinatal and Paediatric Epidemiology Research Team, Centre for Epidemiology and Biostatistics (U1153), Paris-Descartes University, Paris, France
Contact: A.J.Macfarlane@city.ac.uk

Background

In many countries, migrant women have been shown to have higher rates of adverse perinatal outcomes. However, risks differ by mother's country of origin and may also differ by host country. The Euro-Peristat project which aims to monitor perinatal health and care in Europe includes an indicator on women's country of birth. We sought to describe variations the proportion and origins of migrants delivering babies in European countries.

Methods

Euro-Peristat is a collaboration between 26 member states of the European Union plus Norway, Iceland and Switzerland to compile aggregated routine data on 10 core and 20 recommended indicators. Participating countries contributed aggregated data mothers' countries of birth for 2010 births, using the most detailed classifications available in their routine systems. If countries of birth were not available, we collected data on mothers' ethnicity or nationality.

Results

Nineteen countries (65%) contributed data about mothers' countries of birth for 2010 and eleven (38%) about nationality, ethnicity or other data. In 16 of the countries with data, more than a fifth of mothers were foreign born or of foreign nationality, but not all were migrants, for example women working in Luxembourg or Brussels, Portuguese women born abroad to Portuguese parents or UK citizens born on military bases in Germany. In some eastern European countries, 'foreigners' were largely of Russian origin, while in western European countries, 'foreigners' came from largely former colonies, countries in conflict or other EU countries, especially Poland and Lithuania.

Conclusions

In many European countries, a sizeable proportion of births are to women born outside of the country.

Key messages

- Migrant and other foreign born women form a substantial proportion of maternity service users in Europe and services should cater for diversity
- Improvement are needed in the data available to compare births in Europe to migrants and other foreigners

Economic crisis, cutbacks and migrants' access to healthcare in Spain: health workers' perspective

M.Luisa Vázquez

V Porthé[1], I Vargas[1], D Malmusi[2], B Sanz[3,4], L Otero[4,5], L Bosch[6], E Ronda[7], J Heras-Mosteriro[8], I Plaza[9], M Ballesta[10], JR Llopart[11], L Colomes[12], ML Vázquez[1], for MEISI I project
[1]Health Policy and Health Services Research Group, Consortium for Health Care and Social Services of Catalonia, Barcelona, Spain
[2]Health Information Systems, Agència de Salut Pública de Barcelona, Barcelona, Spain
[3]Escuela Nacional de Sanidad, Instituto de Salud Carlos III, Madrid, Spain

[4]CIBER de Epidemiología y Salud Pública, CIBERESP, Madrid, Spain
[5]Sección Departamental de Enfermería, Facultad de Medicina, Universidad Autónoma de Madrid, Madrid, Spain
[6]Unitat de Atenció al Ciutadà i Comunicació. Serveis de Salut Integrats del Baix Empordà Palamós, Girona, Spain
[7]Public Health Department, University of Alicante, Alicante, Spain
[8]Public Health and Preventive Medicine Service, Universitary Hospital Ramón y Cajal, Madrid, Spain
[9]Evaluation, Information network and Quality Unit, Catalonian Health Institute, Barcelona, Spain
[10]Department of Epidemiology, Murcia Regional Health Council, Murcia, Spain
[11]General Surgery Department, Badalona Serveis Assistencials, Badalona, Spain
[12]Health Policy and Health Services Research Group; Strategic Planning Division. SAGESSA Group, Reus, Spain
Contact: mlvazquez@consorci.org

Background

During the economic crisis Spain reduced its public health expenditure by 18.8% and limited the rights to healthcare for undocumented migrants (RDL16/2012) which Catalonia mitigated (Instruction10/2012). The objective is to analyze changes in migrants' access to healthcare in the context of the economic crisis from the health workers' perspective.

Methods

Qualitative descriptive and interpretative study performed in two areas in Catalonia (Nov.2014-Mar.2015) based on individual interviews with a theoretical sample of primary and secondary care professionals and administrative staff. Thematic analysis segmented by areas and informants was carried out. Data quality was ensured through triangulation of informants and analysts.

Results

All informant groups reported changes in access not only to the health system but also to the care continuum and responsiveness, despite considering that even those without entitlements received care when needed. However, they signal an increase in bureaucracy due to the restrictions introduced in the entitlements to care that hinder entry to the system. Regarding access to care, they identified an increase in waiting times for secondary and emergency care, affecting all patients but especially migrants; this was attributed to changes in entitlements and those introduced to reduce costs: reductions in resources (beds; staff) and organizational changes (worsening employment conditions and increased process standardizations and justifications for prescribing). A decrease in health services utilization due to inability to afford public transport in rural areas, the co-payments of medicines and to access services during working hours, which they related to migrants' worsening socioeconomic conditions was also reported.

Conclusions

Health workers identified increasing barriers to the entry and to access the continuum of care that especially affect migrant patients, which they directly related to policy decisions made.

Funding: FIS (PI13/00261)

Key messages

- Health workers perceive that restrictions on entitlements to care negatively impact the entry to the health system and access to the continuum of care
- Health workers perceive that healthcare cutbacks have increased barriers of access to the continuum of care and responsiveness, which specially affect migrants

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Health self-perception and access to health services among migrants

Aldo Rosano

Aldo Rosano[1], Elena Ronda[2], Valeria Iadevaia[1], Nadia Mignolli[3], Alessandra Fasano[3], Roberta Pace[4], Claudio Tagliaferro[1]
[1]Institute for the Development of Vocational Training of Workers, Italy
[2]University of Alicante, Spain
[3]National Institute of Statistics, Italy
[4]University of Bari, Italy
Contact: a.rosano@isfol.it

Background

In Italy and Spain the number of migrants has strongly increased in the last 20 years, now representing over 8% of the population. The objective of this study is to compare health self-perception and access to health services between migrants and native people in these countries during the recent economic crisis that particularly affected vulnerable groups.

Methods

Data from the Italian and Spanish 2007 and 2011 EUSILC surveys (European Union Statistics on Income and Living Conditions) were used ($n = 40{,}000$ in Italy and $n = 28{,}000$ in Spain). Health access and self-perception were analysed in natives and migrants coming from countries with a low Human Development Index (< 0.85). The comparison of risks to have bad or very bad health self-perception and unmet need for medical examination or treatment (UNMET) because of economic reasons was carried out using a logistic model (adjusting factors: gender and age).

Results

In Italy and Spain the health status self-perception among migrants did not change significantly and the risk of perceiving a bad or very bad health status was not different from native populations. UNMET increased among migrants both in Spain (from 3 to 4%) and in Italy (from 5 to 9%), being significantly higher than natives in Italy in 2007 (OR = 2.0;95%C.I.:1.5–2.6) and 2012 (OR = 2.4;95%C.I.:2.0–3.0), in Spain only in 2007 (OR = 2.0; 95%C.I.:1.4–2.8), since here UNMET among natives increased from 1.5 to 5.4% (2007–2012).

Conclusions

This collaborative study allowed relevant evidences about the health conditions of migrants in South European countries. The findings suggest the importance of implementing programmes to enhance access to health care in general and not only among migrants, especially during critical phases.

Key messages

- Proven that financial crises affect the access to health services among vulnerable groups, targeted measures should be adopted to avoid the lack of healthcare provision due to economic reasons

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Knowledge and usage rate of traditional and modern contraceptive methods among young Roma women

Slađana Muratović

S Muratović
Department of Pharmacy, Faculty of Medicine, University of Novi Sad, Serbia, Novi Sad, Serbia
Contact: sladja.sladja.muratovic@gmail.com

Background

The current Serbian abortion rate is the highest in Europe (2.8/women and 3.2/Roma ethnicity women of childbearing age or unofficially 150,000 abortions/year in the country of about 7 million inhabitants). The aim of this study was to compare the knowledge and usage rate of contraceptive methods between young Roma and general population women in Serbia.

Methods

A pilot study was conducted among 30 young (23.03 ± 5.82 y) Roma women (R) and 30 (22.5 ± 2.11 y) women of the general population (GP). Subjects were asked to fill in an anonymous questionnaire about the knowledge and usage rate of various contraceptive methods. The Wilcoxon rank test ($p < 0.05$) was used to compare the two study groups.

Results

The usage rate of withdrawal: 14 (46.67%) in R vs. 13 (43.33%) GP, rhythm: 5 (16.67%) in R vs. 10 (33.33%) in GP and morning after pill: 7 (23.33%) in R vs. 7 (23.33%) in GP did not differ significantly. Although, the knowledge and the probability of using a condom and oral contraceptives did not differ significantly, the possibility for using it in the future as contraception, for those who rely on withdrawal and rhythm, varies: 1 (0.03%) in R vs. 6 (20%) in GP and 6 (20%) in R vs. 14 (46.67%) in GP respectively. The poor knowledge of contraception with contraceptive ring, sponge or film was statistically significant pronounced in R over GP: 11 (36.67%) vs. 26 (86.67%), 3 (10%) vs. 14 (46.67%) and 3 (10%) vs. 12

(40%) have never even heard of, respectively and none of the 60 participants have ever used these methods.

Conclusions

About 45% of the women endorsed in the survey prevent conception by withdrawal. Knowledge and usage rate of modern contraceptives among young Roma women in Serbia are poor and require promotion of contraception methods.

Key messages

- Roma and Serbian women did not differ significantly in terms of the usage rate of traditional vs modern contraceptive methods
- Knowledge of modern contraceptive methods is very poor among Roma women.

Applications and limitations of the concept of avoidable mortality among immigrant groups in Europe

Nataliya Makarova

N Makarova[1], *F Klein-Ellinghaus*[1], *L Frisina Doetter*[2], *H Zeeb*[1]
[1]Department Prevention and Evaluation, Leibniz Institute for Prevention Research and Epidemiology - BIPS. Bremen, Germany
[2]TranState Research Center, University of Bremen, Germany
Contact: makarova@bips.uni-bremen.de

Background

Avoidable mortality is often used as a key indicator of broader health inequalities. This includes among other things differences in the presence of disease, health outcomes, or access to health care. Migrants represent a disadvantaged and growing demographic group with special health risks. We aimed to identify the strengths and limitations of the concept of avoidable mortality for comparative work.

Methods

We analysed the usages of the concept of avoidable mortality as applied in studies on migrants in Europe. A scoping review was conducted for the period of 1990–2011. Publications were identified by a systematic search of PUBMED and WEB OF SCIENCE. A total number of 37 publications from 10 European countries were included in the analysis.

Results

The authors divided studies according to direct versus indirect usage of the concept. Studies with direct usage of the concept established a correlation between patterns of avoidable mortality and health care system performance. Additionally, they searched studies which indirectly used avoidable mortality to examine further evidence for the strengths and weaknesses of the concept. These studies used indicators of amenable mortality (at times alongside other mortality indicators) without making direct reference to the concept. Findings using both approaches identified a similar trend in principal causes of premature death.

Conclusions

Our results highlight the role of health care systems in contributing to migrant health outcomes. These findings can provide policy makers with important insights into targeted ways of improving the access and quality of health services for marginalised populations. However, the strength and depth of such insights stand to improve, as current research on avoidable mortality is often indirect, thereby limiting the potential for cross-national comparison, as well as a clearer understanding of the links between health outcomes and health care system performance for a disadvantaged group.

Key messages

- Avoidable deaths refer to all those, that could be avoided through timely intervention and equal chances in health care
- The concept of avoidable mortality appears underused, despite the availability of data and variety methods

Cervical Cancer Screening Participation among Immigrants in Finland

Esther Idehen

E Idehen[1], *P Koponen*[2], *T Juntunen*[2], *M Kangasniemi*[1], *AM Pietilä*[1], *T Korhonen*[1,2,3]
[1]Department of Public Health & Clinical Nutrition, University of Eastern Finland
[2]National Institute of Health & Welfare (THL), Finland
[3]Department of Public Health, University of Helsinki, Finland
Contact: esthyi@hotmail.com

Background

Cervical cancer is one of the most common cancers in women worldwide and thus a public health problem. Early detection of this disease can be obtained using regular Pap smear tests. The number of female immigrants in Finland has increased in recent years, and high growth is expected in the future. Previous studies in Finland revealed low participation rates for cervix screening among immigrants compared with native Finns. Meanwhile; reasons for unsatisfactory participation have not been investigated.

Methods

This study utilizes data from Migrant Health and Well-being Survey study conducted by the Finnish Institute of Health & Welfare (THL) in 2010–2012. Participants included 3000 persons from Russia, Somalia, and Kurdish origin. Responses to Pap test participation within past five years were available from 620 women aged 25–60. Data were analyzed by using the StataSE/13 software package to explore factors associated with Cervical Screening (CS) participation among the groups.

Results

Significant differences in CS participation were observed between the countries of origin. Highest participation rate were found among the Russian background (73.9%; 95%CI = 68.1–79.5), followed by the Kurdish (61.3%; 95%CI = 55.0–67.7), and Somali group (34.7%; 95%CI = 26.4–43.0). Common significant factors for increased to CS participation among the three groups were having had at least one general or gynecological health exam within the past five years. Other factors were; among the Russians, literacy in Finnish/ Swedish (Finnish official languages) and longer length of stay in Finland. Among the Kurdish, such factors were: being employed and married. Barriers to SC were among the Russians group; higher age of migration. Among the Somali background were: living outside of the metropolitan area, distrust to public health care and problems due to female genital mutilation. However, among the Kurdish, significant barriers were not identified.

Conclusions

Differences in Pap smear test utilization among these groups exist. For intervention strategies aiming for compliance to CS participation, a culturally tailored program is appropriate.

Key message

- Study demonstrates what determines immigrant women's participation in cervical screening. Thus, vital for the creation of efficient public health interventions, and to appropriate resource allocation

The Experience of the Roma community health-insurance centers

Galya Traykova

G Traykova[1], *N Tzacheva*[1], *G Iliev*[2]
[1]Department ''Occupational Medicine'', Faculty of Public Health, Medical University-Sofia, Sofia, Bulgaria
[2]Association ' World without Borders, Bulgaria
Contact: galq_traykova@abv.bg

Introduction

Under the program ''Prevention and control of the HIV/AIDS'' through global fund for prevention of tuberculosis, malaria, and AIDS, within the frames of the Component, 5 ''Prevention and control of the AIDS within the Roma community'' Health-Insurance Centers (HIC) were built in Bulgaria. to educate the health-insurance leader groups, individual health consultations and to ameliorate within the concepts of the Roma community towards more knowledge for the safeguard and the maintenance of the health, as to facilitate the access to health and social help for the people in need.

The aim of the study is an analytic review of the HIC with regards to the amelioration of their actions for the prevention of the morbidity through the minorities.

The methods for obtaining data are documental, survey, observation and expert analysis.

Results and discussions

The group created of coordinators, expert-psychologists or social worker, mediator and assistance from the Roma community and NGOs are providing free medical services on site as consulting and testing for HIV/AIDS, syphilis, hepatitis B and C. 8 centers are working with the financial aid from the program and have attracted as partners RHI, Municipalities with Directories ‘‘HA’’ ect., thus they have the support of the local Roma NGOs for direct operations with the Roma. They activate and mobilize the community under different campaigns and initiatives, as the Roma children immunization against measles, prevention of institutionalization of children and the early marriage.

In conclusion it is required the municipalities to recognize the services of the HIC as centers for transformation and to include them in the list of the services with state-delegated budget, jointly managed by Roma and NGOs with the required knowledge and skills. Here is where the academic education of bachelors and masters in public health as leading specialist in this specific area of the national system of healthcare comes into place.

Key messages

- Under the program ‘‘Prevention and control of the AIDS within the Roma community’’ Health-Insurance Centers (HIC) were built in Bulgaria to facilitate the access to health and social help for people
- HIC ameliorate within the concepts of the Roma community towards more knowledge for the safeguard and the maintenance of the health

Ethnic school class composition and loneliness, national representative study of Danish adolescents

Katrine Rich Madsen

KR Madsen[1], MT Damsgaard[1], SS Jervelund[2], BE Holstein[1]
[1]National Institute of Public Health, University of Southern Denmark, Copenhagen, Denmark
[2]Department of Public Health, Section for Health Services Research, University of Copenhagen, Denmark
Contact: krma@niph.dk

Background

Feelings of loneliness during childhood and adolescence can have serious health and behavioral consequences. Although immigration is a growing worldwide phenomenon research about migration and ethnicity is sparse and inconclusive. Among adolescents, the ethnic composition of their school class may play an important role for the risk of loneliness but only few studies address this issue. The purpose of the study was therefore to explore the relation between ethnic school class composition (ESCC) and loneliness.

Methods

We used data from the Danish 2014 Health Behaviour in School-aged Children study (HBSC): A national representative survey among 11-, 13- and 15-year-old schoolchildren. The study population was 4,534 schoolchildren nested within 248 school classes within 48 schools. We performed multilevel logistic regression analyses with loneliness as the dependent variable, ESSC as the independent variable and gender, age-group and country of origin as co-variates. Loneliness was measured with a single question: “Do you feel lonely?” ESSC was operationalized in four ways: 1) Size of own ethnic group in school class, 2) Ethnic diversity in the school class, 3) Size of ethnic majority in class, and 4) Membership of ethnic majority in class.

Results

We found that schoolchildren who did not share ethnicity with any classmates had higher odds for loneliness than schoolchildren who had one or more ethnic compatriots (OR = 1.92, CI: 1.09–3.37). No significant associations were found between loneliness and the three other variables of ESSC.

Conclusion

The study provides new and important insight into the contextual factors that may influence loneliness in adolescence and highlights the importance of the classroom context in regards to loneliness.

Key messages

- Very few studies address ethnic background and school context in relation to loneliness in adolescence
- This study shows that having no compatriots in the school class doubles the risk of loneliness

Cost effectiveness of an intervention aiming at migrant women with unexplained somatic complaints

Gerrit T. Koopmans

G Koopmans[1], M Kaddouri[2], A Choté[1], L Hakkaart-van Roijen[2], M Foets[1]
[1]Erasmus University Rotterdam, institute of Health Policy and Management, Rotterdam, The Netherlands
[2]Erasmus University Rotterdam, institute of Medical Technology Assessment, Rotterdam, The Netherlands
Contact: g.koopmans@bmg.eur.nl

Introduction

Medically unexplained somatic complaints are often presented by patients visiting a general practitioner (GP). Referral to a mental health service is often not effective or refused. This situation is seen more often among non-western migrant women.

We developed a special intervention for this category of frequent attenders, named ‘Energy in Balance’. The intervention consists of 13 group sessions in which 8–10 patients participate. Sessions are tailored to goals of the participants. They are not problem oriented, but aim at positive experiences and stimulate thinking in opportunities in different areas of life (empowerment). The intervention is to be executed by special trained nurse practitioners or social workers.

Methods

Aim of the study was to establish the cost-effectiveness of the intervention in comparison to care-as-usual by a multicentre RCT. From 16 participating practices at least 8 patients were selected, who met inclusion criteria. GP practices were randomly allocated to control vs. experimental condition.

Primary outcome measure was quality of life (SF12). Costs were measured by the Tic-P questionnaire. Analyses were based on the intention-to-treat principle.

Results

At baseline there were no differences between both conditions on Quality of Life. On average the direct medical costs were higher in the experimental than in the control condition (€4967 vs. 3083). However indirect costs (productivity losses) were much lower in the experimental condition (€6483 vs. 8917).Total costs (direct and indirect) were almost the same. The intervention created slightly better outcomes. The costs for one gained quality adjusted life year (QALY) were resp. € 258 038 (direct costs only) and €18341 (direct and indirect costs).

Conclusion

The cost effectiveness of the intervention was within acceptable boundaries from a broader societal perspective. However, when only direct medical costs are taken into account, the cost effectiveness is beyond these boundaries.

Key messages

- The cost effectiveness of the intervention was very much depending on which types of costs were included
- The intervention created just a slightly better outcome

Determinants of Health Seeking Behavior in Pakistan: A Complex Health Survey Design

Shafquat Rozi

Shafquat Rozi[1,2], Sadia Mahmud[3], Gillian Lancaster[2], Wilbur Haddend[4], Gregory Pappas[5]
[1]Department of Community Health Sciences, Aga Khan University, Karachi, Pakistan

[2]Department of Mathematics and Statistics, Lancaster University, Lancashire, UK
[3]Department of Medicine Consultancy, Deaprtment of Paediatrics & Child Health, Aga Khan University, Karachi, Pakistan
[4]Department of Sociology, University of Maryland, College Park, USA
[5]George Washington University, District of Columbia Washington D.C., USA
Contact: shafquat.rozi@aku.edu

Background

The health care delivery system in Pakistan is complex in nature and limited resources are available for the health care sector. Hence it is important to understand the health seeking behavior of the population and trend of health services utilization in Pakistan.

Objectives

To investigate the determinants of health seeking behavior in Pakistan we suggest a multilevel pseudo maximum likelihood (MPML) approach to estimates model parameters for the complex survey design.

Method

The sampling strategy of the National Health Survey was stratified two stage cluster sampling. Overall 18,315 subjects were interviewed. This is three level data with PSUs at the third level, household at the second level and persons at the first level. Health care utilization was considered as a binary outcome.

Results

We found age, gender, marital status, household ownership of durable goods, urban/rural status, community development index, and province as significant predictors of health care utilization (p-value <0.05). We also found two significant interactions; between gender and marital status (p-value <0.005), and between the community development index and urban/rural status (p-value <0.045).

The variances of the random intercepts are estimated as 0.135 for PSU level and 0.224 for HH. The results are significantly different from zero (p-value <0.05) and indicate considerable heterogeneity in health care utilization w.r.t to HHs and PSUs.

Conclusion

The low economic status, illiteracy, lack of awareness, and cultural and social barriers create obstacles in health care utilization. It suggests that more health centers should be set up in rural areas. There is also a need to consider gender sensitive programs and other determinants which we have highlighted in our results to bring about significant changes to the health care system of Pakistan.

Key messages

- This study builds the case for Pakistan that data can safely be used for decision makings. It also gives support to health advocates who use data to promote health reform

6.W.K. Poster walk: Chronic and non-communicable diseases

Rare Diseases in Europe: the Portuguese framework

Patrícia Rama

P Rama, V Gómez, A Machado, C Furtado, D David, N Miranda, G Isidro
National Institute of Health Doutor Ricardo Jorge, Lisbon, Portugal
Contact: patricia.rama@insa.min-saude.pt

Background

The EUCERD Joint Action (EJA) for Rare Diseases (RD) consists on five domains: national RD plans and strategies, international RD nomenclatures, specialized social services, quality of care/centres of expertise and integration of RD initiatives. This work intends to provide the Portuguese position on RD.

Methods

A workshop was held in Portugal, November 2014, which included participants from eight different countries. Five sessions took place where the European state of art of every domain was counterbalanced withthe Portuguese reality. The participants were European authorities, EJA's partners, experts, researchers, health care and public health professionals and patients' representatives. A qualitative data analysis of the presentations contents was performed.

Results

In relation to plans and strategies, a new National Integrated Strategy for RD was approved and encompasses healthcare and diagnosis, research and social dimensions.

As regards to nomenclature, to date, health professionals use different coding systems. A proposal for the ORPHA number system to be adopted in disease nomenclature was discussed.

Among specialized social services, good practices examples were described.

Concerning RD initiatives and quality of care, the main initiative is the development of a personal RD ID card with the patient's data.

Finally, the creation of the European Reference Networks between healthcare practitioners and the Reference Centres (RC) of the MS, exploring the possibilities of European cooperation in highly specialised healthcare fields was discussed. In Portugal there is not an official recognition of RC. However a work team has been put together acknowledging the strategic importance of the constitution of such units.

Conclusions

Regarding the different aspects related to RD, Portugal has been developing several activities but integration needs to be done. The National Integrated Strategy for RD 2015–2020 was designed to address this gap.

Key messages

- Stronger efforts should be developed to address the multi-dimensional problem related to RD
- Consensus set that is necessary to strengthen the cooperation between the EU, the MS and all relevant stakeholders in the field of RD policies

Telemedicine policy from European to Rhône-Alpes regional level in France, 2008 to 2015

Robin Ohannessian

R Ohannessian[1], L Ponson[2]
[1]Université Lyon 1, Lyon, France
[2]Agence Régionale de Santé Rhône-Alpes, Lyon, France
Contact: robin.ohannessian@gmail.com

Telemedicine is the provision of healthcare services from a distance. Due to its complex medical, technical and organisational nature, telemedicine needs specific policies to support its deployment.

European Commission declared in 2008 the adoption of national telemedicine legislations in the European Union as a priority, stating it 'can help improve the lives of European citizens, while tackling the challenges to healthcare systems'. France issued its national telemedicine legislation from 2009 to 2011. A law defining telemedicine as a medical act was voted. A decree indicated the methods for regional scale deployment with definition of regional telemedicine programs and signature of legal contracts for telemedicine activities with regional health agencies.

Rhône-Alpes health regional agency thus included a regional telemedicine program into its 2012–2017 regional health plan. Contracting regional telemedicine activities began in 2014 after the design of a telemedicine activity assessment method.

The method was composed of a standard regional telemedicine contract and a five step assessment process relying on the agency's internal organization. The process was comprised of multidisciplinary, medical, technical, juridical and territorial assessment. In February 2015, seven contracts were signed or going to be, among 15 received, over around 75 activities estimated in the region.

The main strengths of the method were the support placed towards the quality and improvement of telemedicine activities and their integration into regional and national health policies. It also allowed having a clear view on the common issues regarding activities such as financing and data privacy protection. Taking into account progress made and complexity of regulatory issues regarding telemedicine activities in France, a new decree will be published in 2015, with adapted and simplified recommendations to encourage a more effective large-scale deployment of telemedicine in France.

Key messages

- Telemedicine is a real opportunity for tackling challenges of healthcare systems and will contribute to improve public health outcomes
- A liable, effective, safe, evidence-based telemedicine deployment at, local, regional, national, and European levels needs comprehensive, supportive and adaptive specific health policies

Stroke risk assessment tool including chronic kidney disease improve a predictive probability

Fumiaki Nakamura

F Nakamura[1], K Nishimura[1], M Watanabe[2], Y Kokubo[2], A Higashiyama[2], M Takegami[2], YM Nakao[2], M Nakai[1], T Okamura[2], Y Miyamoto[2]
[1]Center for Cerebral and Cardiovascular Disease Information, the National Cerebral and Cardiovascular Center, Suita, Japan)
[2]Department of Preventive Cardiology, the National Cerebral and Cardiovascular Center, Suita, Japan
Contact: f-naka@m.u-tokyo.ac.jp

Background

To prevent stroke, providers evaluate general inhabitants for cardiovascular risk factors that may warrant medical treatments. Although the Framingham stroke risk score (FSRS) is a widely used assessment tool, FSRS does not include chronic kidney disease (CKD) that was an independent stroke risk factor in Asians. Aims of this study is to develop an improved stroke prediction model including CKD.

Method

We used the data from Suita study, which is a large population-based cohort study of randomly selected urban residents living in Suita city, Japan. As a baseline survey, 3367 men and 3116 women aged from 30 to 79 years had a health checkup at the National Cerebral and Cardiovascular Center between September 1989 and March 1994. We followed them until December 2007. After excluding participants with missing data or lost to follow up, the study population comprised 2602 men and 2878 women. The main outcome measure of this study is an incidence of stroke. Multiple Cox proportional hazard model with stepwise selection was used to develop the prediction model. To assess model performance, c-statistics and their 95% confidence intervals were calculated with applying a bootstrap procedure.

Results

The median of follow-up were 15.3 years and 257 cases of stroke were identified. The crude incidence of all strokes was 3.70 per 1000 person-years. The univariate Cox regression analysis showed that all risks in FSRS and CKD were statistically significant. We constructed a Suita Stroke Risk Score (SSRS) that incorporated 9 clinical variables: age, blood pressure, antihypertensive medication, smoking status, diabetes, prior history of coronary heart disease, atrial fibrillation, left ventricular hypertrophy, and CKD. The c-statistic value of SSRS was higher than FSRS [0.816 (95%CI, 0.794–0.838) vs. 0.800 (95%CI, 0.776–0.824), $p = 0.01$].

Conclusion

Our improved stroke risk assessment tool including CKD more accurately predicted incidence of stroke than FSRS.

Key messages

- Improved stroke risk assessment tool including CKD increases accuracy for predicting incidence of stroke than FSRS
- The assessment with CKD may be useful to prevent occurrences of stroke in Asians

Joining forces across Europe to strengthen policies and approaches to prevent chronic diseases

Ingrid Stegeman

C Costongs, T Kunkel, T Chavarría Giménez
EuroHealthNet, Brussels, Belgium. Federal Centre for Health Education, Koln, Germany. National Institute of Health Carlos III, Madrid, Spain
Contact: i.stegeman@eurohealthnet.eu

Issue/problem

Chronic diseases affect 8 out of 10 people aged over 65 in Europe. Approximately 70% to 80% of health care budgets across the EU are spent on treating chronic diseases. Despite the fact that many chronic diseases are preventable, or their onset can be delayed, only 2–3% of health costs in EU Member States are invested in prevention measures.

Problem

The EU Joint Action on Chronic Diseases (JA-CHRODIS) involves the European Commission (DG SANTE) and Health Ministries and other organisations from 24 EU Member States, who are collectively investing almost 10 million Euro to identify and share the best approaches to reduce the burden of chronic disease in the EU. To establish the groundwork for the work of JA-CHRODIS in the area of health promotion, partners from 14 EU Member States developed country reviews that amongst other things outline the health promotion and primary prevention 'landscape' in their country, as well as their gaps and needs in relation to this topic.

Results

While there are significant differences in systems and structures across partner countries, there are many commonalities in the key themes emerging from the gaps and needs identified. Evaluation, monitoring and research as well as capacity and capacity development were the most frequently identified items. All reports made reference to a lack of consistent funding at levels adequate to deal with these deficiencies and necessities.

Lessons

The gaps and needs identified offer a basis for reorientation, improvement, redevelopment and capacity development in health promotion and prevention, both within their respective countries and as a shared venture. Mechanisms for sharing information, examples of good practice and support for capacity development should include the development of agreed terminology, criteria for selection and evaluation and communication systems that transcend language and contextual barriers and focus on a shared ethical dimension.

Key messages

- There remains a strong need to invest more and more consistently in health promotion and primary prevention as an approach to making health systems more sustainable
- EU Member States can support one another by establishing a common framework to share successful approaches and good practice. This is being developed in the context of the JA-CHRODIS

The type of digital mammography is an influencing factor for the performance of national screening

Huay-Ben Pan

HB Pan[1], KF Wong[2], GC Hsu[1], HL Liang[1]
[1]Department of Radiology, Kaohsiung Veterans General Hospital, Kaohsiung, Taiwan, ROC

[2]Institute of Statistics, National University of Kaohsiung, Kaohsiung, Taiwan, ROC
Contact: panhb@vghks.gov.tw

Background

To compare the clinical performance of mammography between computed radiography (CR) and direct radiography (DR) in a population-based screening.

Methods

According to the rule of the quality assurance program, we audited the machines and screeners that participated the screening. In 2014, a total of 732,381 screening mammography were performed under 88 CRs and 201 DRs by 1190 radiographers in Taiwan. Of them, the imaging quality of 24 CRs and 53 DRs, selected for site visit by a physicist, and of every screening radiographer was audited by auditing radiographers. Also 9863 films provided by the underperformed radiologists were audited by auditing radiologists. We compared the proportion of mammograms produced by DRs and CRs that were classified as class A,B,C,D standing for perfect, good, regular and inadequate, respectively.

Results

The ratio of quality assessment of DR and CR from the dimension of physicist was 1.65 (96.2%/58.3%) in class A and 0.09 in class B. The ratio of DR and CR from the dimension of radiographers for machines factor was 1.23 in A; 0.87 in B. 0.12 in C and 0.12 in D, respectively. After adjusted the biased sampling, the denominators will be same as the machine number in our nation. Dense breast was 1.23 in A; 0.79 in B. 0.15 in C and 0.15 in D. Fatty breast was 1.18 in A; 0.8 in B. 0.06 in C and 0 in D, respectively. And for radiographer factor was 1.17 in A; 0.78 in B. 0.2 in C and 0.03 in D. of them, 8.2% own CR products actually need some punishment. The ratio of DR and CR from the dimension of radiologists was 1.15 in A; 1.0 in B. 0.8 in C and 0.58 in D, respectively. The p-values of all the above mentioned data were significant (< 0.001).

Conclusion

The audited results suggest that DR performs better than CR in imaging performance in the viewpoint of physicist, radiographers and radiologists. Enhancement of CR monitor is necessary for quality improvement for population-based mammography screening.

Key messages

- The audited results in a population-based mammography screening suggest that direct radiography performs better than computed radiography in the viewpoint of physicist, radiographers and radiologists
- Compare with direct radiography, more enhance in computed radiography monitoring is necessary for quality improvement in population-based mammography screening

Reimbursement of target oncological immunotherapies in Bulgaria – problems and perspectives (2015)

Nadia Veleva

T Vekov, S Aleksandrova-Yankulovska, N Veleva, R Koleva-Kolarova
Faculty of Public Health, Medical University, Pleven, Bulgaria
Contact: veleva_nadia@yahoo.com

Background

Drug therapies based on monoclonal antibodies (MABT) are immunotherapies that are innovation in cancer treatment. This is a high cost treatment with usually unsatisfactory cost-effectiveness. Hence there is a need for pharmacoeconomic analysis to justify public resources allocation for such therapies in Bulgaria.

Methods

Systematic review of cost-effectiveness of MABT publications in PubMed and Cochrane Library databases was performed and the conclusions were compared to the guidelines of the Bulgarian National Association of Oncology (BNAO). Literature search was based on MeSH terms – international nonproprietary name, MABT, costs analysis, cost-effectiveness, cost-utility analysis, healthcare costs. Inclusion criteria: publications from the last 10 years that meet good practice requirements for pharmacoeconomic analysis. 12 MABT were included, 8 of which are in the Bulgarian positive reimbursement list by January 2015. All data identified are classified in disease based categories. MABT reference prices are from the positive reimbursement list by 2015.

Results

Our search yielded 75 pharmacoeconomic analyses. There is 80% inconformity of the MABT reimbursed in Bulgaria with good practices. In 2014 Bulgarian public health expenditures for MABT exceed 48 million EUR. There are no expert reports with pharmacoeconomic analysis of MABT though. By 2015 National Council on Prices and Reimbursement of Medicinal Products (NCPRMP) justifies its reimbursement decisions with the BNAO therapeutic guidelines only. Lack of comparative cost-effectiveness assessments and relevant therapeutic guidelines lead to uncontrolled rise of MABT expenditures in the period 2012–2015.

Conclusion

Current Bulgarian practice is not a good practice. The main problem is that NCPRMP does not apply pharmacoeconomic analyses which assess efficacy, safety and costs of a new drug therapy compared to an existing therapeutic alternative prior to reimbursement decisions for MABT therapies.

Key messages

- MABT reimbursement decisions in Bulgaria should be based on pharmacoeconomic assessments of efficacy, safety and costs of treatment which is the good practice
- NCPRMP should be obliged to provide public reports on the cost-effectiveness of reimbursed MABT therapies in order to justify objectiveness and transparency of public spending

Impact of new endoscopic classification on public health: an international study

Giovanni Brandimarte

G Brandimarte[1], G Nasi[2], F Di Mario[3], M Nonis[2], A Tursi[4], DICA Collaborative Group[5]
[1]Division of Internal Medicine, ''Cristo Re'' Hospital, Rome, Italy
[2]Health Department ''Cristo Re'' Hospital, Rome, Italy
[3]Department of Clinical & Exparimental Medicine, Gastroenterology Unit, University of Parma
[4]Gastroenterology Service, ASL BAT, Andria (BT, Italy
[5]DICA Collaborative Group: Italy: MLAnnunziata, MA Bianco, R Colucci, R Conigliaro, S Danese, R De Bastiani, L Di Cesare, WERo Faggiani, L Ferrini, GForti, G Latella, P G Lecca, MG Graziani, A Papa, A Penna, P Portincasa, A Spadaccini, P Usai, C Zampaletta, MC Addarii, C Cassieri, A Damiani, S Fiorella, R Landi, MA Lai, F Pigo, G Rotondano, G Schiaccianoce, C Scarpignato, M Picchio; Brasil: M Bafutto, E Chavez Oliveira; Germany: E Goni; Norway: Kl Søreide, K Festøy Desserud; Venezuela: R Escalante
Contact: giovannibrandimarte56@gmail.com

Introduction

Diverticular disease of the colon has significant impact on public health, accounting for about 13.000 deaths/year in Europe. The endoscopic classification DICA (Diverticular Inflammation and Complication Assessment) has been recently developed for patients with diverticulosis and diverticular disease.

Materials & Methods

The aim of this study was to assess its predictive value on the outcome of the disease. We reassessed retrospectively patients in clinical follow-up were available. For each patient, we recorded: age at the time of disease occurrence; severity of DICA (grade 1, 2 or 3) at the time of diagnosis; months of follow-up; therapy taken during the follow-up; occurrence/recurrence (in months) of diverticulitis.

Results

The study enrolled 1651 patients (793 M, 858 F, mean age 66.6 ± 11.1 years): 939 (56.9%) patients were classified as DICA 1, 501 (30.3%) as DICA 2 and 211 (12.8%) as DICA 3. The mean follow-up was 29.5 ± 28.7 months. DICA was the only factor significantly associated to the occurrence of diverticulitis ($p < 0.0001$) and surgery ($p < 0.0001$) either at univariate or multivariate analysis. At each level of DICA classification a significant increase of diverticulitis occurrence was detected (HR (95% CI): DICA 1 vs DICA 3: 18.992 (12.267 to 29.406); $p < 0.0001$). With respect to prevention of occurrence/recurrence of diverticulitis, assumption of therapy was effective only in DICA 2 patients with HR (95% CI) of 1.796 ($p = 0.002$). Therapeutic regimens including mesalazine were the only effective therapies to reduce diverticulitis occurrence/recurrence compared to no therapy.

Conclusion

DICA classification is a valid parameter to predict the outcome of the disease, with great impact on public health improving the effectiveness of treatment.

Key message

- The new endoscopic classification DICA has significant impact on public health because can predict the outcome of the disease and improve the effectiveness of treatment.

Dietary patterns and prostate cancer risk

Roberto Fabiani

R Fabiani[1], L Minelli[2], P Rosignoli[1]
[1]Department of Chemistry, Biology and Biotechnology, University of Perugia, Perugia - Italy
[2]Department of Experimental Medicine, University of Perugia, Perugia - Italy
Contact: roberto.fabiani@unipg.it

Background

Several evidences suggest that dietary factors may play a role in the prostate cancer risk. However, epidemiological studies investigating the correlation between consumption of individual foods and nutrients with the prostate cancer risk have produced non-conclusive and sometime contradictory results. Recently, dietary patterns have been applied to examine the relationship between diet and prostate cancer risk. This strategy allows to study the effects of overall dietary habits in a way more closely to the real conditions in which foods and nutrients are consumed in combination. The aim of this systematic review and meta-analysis was to assess the association between dietary patterns, defined by both "a priori" and "a posteriori" approaches, and prostate cancer risk.

Methods

Relevant case-control and cohort studies were identified by literature search of electronic databases (PubMed and Web of Science) up to November 2014. Pooled risks were estimated by a random effects model. Heterogeneity and publication bias were analyzed by chi-square based Cochran's Q-I2 statistic and funnel plot asymmetry, respectively.

Results

30 articles were selected and the full texts retrieved and assessed for inclusion in the meta-analysis. Nine studies were excluded, six studied regarded "Glycemic index", four studied were on "Mediterranean diet score" and the remaining 11 studies considered different dietary patterns derived by "a posteriori" methods. The prostate cancer risk was not associated to both Glycemic index (OR: 1.16; 95% CI 0.98–1.36; $p = 0.079$) and Mediterranean diet (OR: 0.96; 95% CI 0.91–1.02; $p = 0.174$). Two main dietary patterns were identified by "a posteriori" **Methods**

healthy and western. It is actually in progress the association analysis of these diets on prostate cancer risk.

Conclusions

Dietary patterns characterized by high glycemic index and high adherence to Mediterranean score are not related to prostate cancer risk.

Key messages

- The impact of nutrition on cancer risk may be better correlated when, instead of single foods and/or nutrients, dietary patterns are considered
- Although the Glycemic index and the Mediterranean diet score did not significantly influence the prostate cancer risk, significant associations may still be find with healthy and western diets

Dietary polyphenols and cancer incidence: a comprehensive meta-analysis

Giuseppe Grosso

G Grosso[1], A Micek[2], M Marranzano[1,3], A Mistretta[1], EL Giovannucci[3]
[1]Department of Medical, Surgical Sciences and Advanced Technologies G.F. Ingrassia, School of Medicine, University of Catania, Catania, Italy
[2]Department of Epidemiology and Population Studies, Jagiellonian University Medical College, Krakow, Poland
[3]Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, MA, United States of America; Department of Nutrition, Harvard T.H. Chan School of Public Health, Boston, MA, United States of America
Contact: giuseppe.grosso@studium.unict.it

Background

Dietary polyphenols have been suggested to reduce the risk of certain cancers. The aim of this study is to systematically review the current evidence on dietary polyphenols and incidence of various cancers.

Methods

A systematic search was conducted in electronic databases to identify studies that satisfied inclusion/exclusion criteria. Relative risks (RRs) and 95% confidence intervals (CIs) of highest vs. lowest exposure were extracted and pooled using either a fixed-effects or a random-effects model.

Results

A total of relevant 165 studies included the following datasets: 31 from prospective and 44 from case-control studies on breast cancer; 11 and 19 on prostatic cancer; 7 and 11 on ovarian cancer; 3 and 11 on endometrial cancer; 13 and 9 on lung cancer; 4 and 2 on renal cancer; 2 and 12 on upper aero-digestive cancers; 9 and 11 on gastric cancer; 16 and 15 on colorectal cancer; 1 and 6 on pancreatic cancer; 4 and 2 on liver cancer; 5 and 1 on bladder cancer; 5 and 2 on blood cancers; 2 and 1 on thyroid cancer; 2 from prospective studies on urinary organs cancer; 1 from a case-control study on central nervous system cancer; 1 from prospective study on skin cancer; 1 from a case-control study on testicular cancer. Intake of isoflavones was associated with significant decreased risk of hormone-related cancers, such as breast (RR 0.65, 95% CI 0.57, 0.75 for case-control, RR 0.87, 95% CI 0.79, 0.96 for prospective studies), ovarian (RR 0.62, 95% CI 0.46, 0.83 for case-control), endometrial (RR 0.83, 95% CI 0.74, 0.91 for case-control), and prostate cancer (RR 0.85, 95% CI 0.77, 0.93 for case-control). Pooled analyses of studies on lignans revealed non-significant decreased risk for the aforementioned cancer types. Total flavonoids intake was not associated with any cancer whereas individual flavonoid classes (such as flavonols, flavones, catechins, flavan-3-ols, proanthocyanidins) showed decreased risk of certain cancers, including colon, lung, and stomach cancers.

Conclusions

The present study suggests that evaluation of total flavonoid intake may lead to inconclusive result but an association between certain flavonoid classes and decreased risk of various cancers is relevant.**Key messages**

- Dietary polyphenols may be relevant in preventing certain cancers
- Polyphenol classes may have different roles according to cancer cite due to different potential pathways

Developing a clinical pathway for the care of stomach cancer patients: the "A. Gemelli" experience

Paolo Campanella

P Campanella, AG de Belvi, M Favale, P Parente, W Ricciardi, ML Specchia
Department of Public Health, Università Cattolica del Sacro Cuore, Rome - Italy
Contact: paolo.campanella@icloud.com

Issue/problem

Decision-making in hospitals is evolving from being opinion-based to being evidence-based. Whilst clinical guidelines provide evidence-based recommendations, evidence-based practice needs to address the local structure, systems and time-frames. Clinical pathways are document-based tools that provide a link between the best available evidence and clinical practice.

Problem

During a meeting with the professional from all 'A. Gemelli' teaching hospital units involved in the care of stomach cancer patients as well as primary care representatives, the Clinical Governance Unit presented the project of developing a clinical pathway for the care of stomach cancer patients.

Professionals were divided in three groups: a first group analyzed the specific epidemiological context of stomach cancer patients attending the hospital, a second group designed on the basis of evidence and current practice the pathway flowchart in a diagram that shows on vertical axis stages of care and on orizonal axis the places of care and a third group selected quality indicators useful for future audits.

After joint debates, the complete clinical pathway was reviewed by the whole group of involved professionals.

Results

A report including the pathway flowchart of activities articulated in clinical episodes and 28 indicators covering 5 quality dimensions was approved. Multidisciplinary team meetings as well as joint surgeon/medical oncologist examinations were introduced in hospital practice. Case management and cooperation between hospital and primary care were enhanced.

The use of hospital resource and the timing between the different care stages as well as patients' satisfaction resulted improved. Preliminary results show also improvements in clinical outcome measured.

Lessons

Clinical pathways are an effective instrument to decrease undesired practice variability and improve clinician performance. The early involvement of all professionals in the development of clinical pathways is critical to theirs success.

The definition of quality indicators allows to evaluate and monitor implemented clinical pathways.

Key messages

- Clinical pathways providing evidence-based practice can improve quality of care
- The early involvement of all professionals is a key strategy for clinical pathway development

Increasing awareness on HIV and STDs: a four-year program on high school in the Province of Pavia

Sara Cutti

S Cutti[1,4], M Zaramella[2], L Pavesi[2], A Uglietti[2], A Malfitano[2], V Martinelli[3], A Muzzi[1], C Marena[1], R Maserati[2]

[1]Medical Direction Dept, Foundation I.R.C.C.S. Policlinico ''San Matteo'', Pavia- Italy

[2]Infectious Disease Dept, Foundation I.R.C.C.S. Policlinico ''San Matteo'', Pavia - Italy

[3]Brain and Behavioral Dept, University of Pavia, Pavia – Italy

[4]Public health, Experimental and Forensic Medicine Dept - Hygiene Section, University of Pavia, Pavia -Italy

Contact: sara.cutti@libero.it

Background

Although huge impact of HAART on HIV/AIDS-associated morbidity and mortality, a steady number of new infections occurs in our communities. This may be also associated to a decreasing awareness among new generations.

Methods

We set up a program on HIV and STDs (sexual transmitted diseases) across 4 years (yrs) (2011–2012: yr 1, the current: yr 4) and involving a growing number of senior secondary schools: from 3 schools (184 students) in yr 1 to 12 schools (1650 students) in yr 3; yr 4 program still undergoing. The program was based on class meeting led by trained nurse expert in counseling and/or infectious disease physician in yrs 1 to 3. During the current yr along with the established class meeting practice, a peer education program was started in 5 schools. Peers (52) voluntarily enrolled in a 2-month educational course where they were coached on HIV/AIDS and STDs, on presentations skills and how to manage difficult-to-handle behaviors during the class meetings. Across the yrs, participants were asked to fill pre and post-meeting questionnaires.

Results

Data show prevalence of females (57%) with a mean age of 16,5 yrs. Italian students accounted for 87%, immigrants were from eastern Europe (54%), Africa (19%) and south America (18%). 25% smoke and 10% use pot; 50% drink during weekends only. 38% already had sex, but 59% only used a condom at least once. Knowledge on HIV and other STDs jumped after meeting (HIV 55% to 72%; Chlamydia 3% to 14%; Gonorrhea 7% to 31%; Syphilis 16% to 32%; Genital HSV 8% to 31%). Sexual risk awareness for acquiring HIV passed from 41% to 56%. Attitude towards HIV-infected individuals shifted positively: 49% to 92%. Stigma against homosexual remained stable (pre 18%, post 22%).

Conclusion

Peer education program performed are successful and appreciated to increase awareness among new generations concerning STDs. Larger scale educational programs in schools using multiple approaches may be a pivotal part of the efforts needed to end the HIV epidemic in Lombardy.

Key messages

- Increase awareness among new generations concerning STDs
- Reduce incidence of HIV/AIDS and STDs in new generation, performing a larger scale educational programs in senior secondary schools

Are early sexual experiences more prevalent among adolescents with learning disabilities?

Michaela Palfiova

M Palfiova[1,2], D Holubcikova[1,2], A Bobakova[1,2,3], JP Madarasova Geckova[1,2,3], SA van Dijk[1,2,4], Reijneveld[4]

[1]Graduate School Kosice Institute for Society and Health, Safarik University, Kosice, Slovak Republic

[2]Department of Health Psychology, Faculty of Medicine, Safarik University, Kosice, Slovak Republic

[3]Olomouc University Social Health Institute, Palacky University in Olomouc, Olomouc, Czech Republic

[4]Department of Community & Occupational Medicine, University of Groningen, University Medical Center Groningen, The Netherlands

Contact: palfiova.miska@gmail.com

Background

Evidence shows that adolescents with learning disabilities tend to report multiple risk behaviours. One of these is early sexual experience which has possible immediate and long term health consequences such as an increased likelihood of early pregnancy, feelings of regret, and a higher prevalence of sexually transmitted diseases. However, evidence lacks on the connection between learning disabilities and early sexual experience. Our aim is to explore the association between learning disabilities and early sexual experience.

Methods

The data from the Slovak national HBSC study 2014 were analyzed. The final sample comprised 1,549 15-years old adolescents (mean age: 15.39; 52.5% boys). The association between learning disabilities and early sexual experiences was analysed using logistic regression.

Results

One out of ten 15 years old adolescents reported to have learning disability and almost every third of theses had experienced sex at this age. Adolescents with learning disabilities were significantly more likely to have had sex than those not reporting learning disabilities (Odds ratio/95% Confidence Interval: 2.26 /1.44–3.55).

Conclusions

Adolescents with learning disabilities seem to be at a higher risk of early sexual experiences. Prevention programs to postpone sexual experiences to a later age should target at adolescents with learning disabilities.

Key messages

- Adolescents with learning disabilities are more likely to have early sexual experiences
- This suggests a need for appropriate prevention strategies

Promoting healthy lifestyles in adolescents in the Province of Pavia (northern Italy)

Guido Fontana

L Camana, S Nieri, S Dalle Carbonare, C Martinotti, E Frisone, C Cerra, G Rosa, G Fontana
[1]Local Health Authority of the province of Pavia, Italy
Contact: guido_fontana@asl.pavia.it

Issue

Recent data show that majority of adolescents (AD) in Eu still don't meet recommended healthy lifestyles (HL). Despite attention to the problem, there is the need to improve effective strategies against unhealthy lifestyles (UL) by AD.

Description of the problem

Physical activity (PA) improves health of AD and WHO recommends to devote at least 1 hour a day. In Italy only 7.6% of AD aged 11–15 (9,8% males(♀) and 5,3% females (♂)) practice this level. WHO's guidelines on healthy nutrition (N) (intake of 5 servings a day of fruits (F) and vegetables (V)) are only met by 18% of Italian AD for F and 8% for V. More than 20% of AD are overweight (OW)/obese (OB), mainly ♀.

In Pavia Province 59 Pediatricians (P) assist 69.606 children aged <15 and collaborate with LHA in projects of Clinical Governance. The project bargained in 2014 aimed at promoting HL in AD, focusing on the benefits of proper N and PA. P had to integrate the 10th periodic health assessment - addressed to AD aged 11–13- with topics targeted to promote HL (N, PA, risks of use of alcohol and smoking). P had to collect data on health status (BMI, hour/week of PA etc.) of AD cared.

Results

P participants enlisted 1309 AD (48,8%♂, 51,2%♀) (9,61% of the resident population assisted aged 11–13). P assured a personalized counseling intervention, testing an innovative appreciated approach. Data collected show that 14,4% of AD enlisted are OW + OB, (9,7%♂, 19,0%♀). Only 6% (4,7%♂, 7,2%♀) perform PA recommended (>6 hours/week).

Overall, 32,2% declare no PA (34,3%♂, 30,3%♀). 67,8% of AD practice PA (65,7%♂, 69,7%♀) in average for 4 hours/week.

Lessons

Development of effective strategies to promote HL among AD is challenging. LHA of Pavia tested the effectiveness of an intervention by PF who have been committed to raising awareness among their AD cared about risks due to UL. Positive result now stimulates LHA to adopt in normal clinical practice this innovative way of working, whose results will be seen in future.

Key messages

- LHA, as part of its public health interventions, has to develop more targeted preventive actions to tackle burden of diseases due to unhealthy lifestyles in its adolescent resident population
- Preventive interventions in the interest of the population can be promoted by LHA through shared initiatives of clinical governance with PF

„That's good!"-rally. More Food Literacy through intergenerational cooperation? First results

Holger Hassel

A Bütterich[1], M Klein[2], H Hassel[1]
[1]Coburg Universtity of Applied Sciences and Arts, Institute of Applied Health Sciences, Coburg, Germany
[2]Catholic University of Applied Sciences, Cologne, Germany
Contact: iag@hs-coburg.de

Background

„That's good! The rally by young and old", was the health program of the research project MACY, which was executed by the Coburg University of Applied Sciences and Arts and the Catholic University of Applied Sciences Cologne. Each region cooperated with three practice-partners. The aim was to improve the Health Literacy (HL) of people, aged 60 and over and adolescents between 11–14 years.

Did the intergenerational HL-Intervention, amongst other things also promote a rising consumption of healthy food of the target groups (optimizing of the food consumptions with fruits/vegetables and drinks)?

Methods

In 11 multigeneration-spanning groups 87 elderly people and 92 adolescent participated in the intervention (22 meetings, of 90 minutes each) from January 2013 to July 2013. Nutrition was processed in 6 meetings. The questionnaire survey took place at three times of exhibition. The results refer to the pre-post comparison. The data was analyzed with Wilcoxon- and t-test.

Results

Older people and the adolescents improved their dietary habits. Both target groups increased their daily fruit consumption from 1 to 2 portions. The vegetable consumption didn't changed. The older people decreased the consumption of sweets from 3 to less than 3 portions/week and the adolescents from 2 to 1 portion/day. Furthermore, the older people increased their daily amount of beverages from 6 to 8 glasses. From 86 % of the elderly people and 87 % of the adolescents the intergenerational cooperation was positively evaluated.

Discussion

The „That's good!"-rally was an effective intervention for the promotion of a healthy eating behavior of elderly people and adolescents.

The sustainability of the project was ensured by the autonomous continuation of the rally and by the transfer in further facilities.

Key messages

- The „That's good!"-rally was an effective intervention for the promotion of a healthy eating behavior of elderly people and adolescents
- The intergenerational HL-Intervention promoted, amongst other things a rising consumption of healthy food of the target groups

Beyond food promotion: The influence of the food industry on childhood obesity

Diana Sonntag

D Sonntag[1], N Mdege[2], S Ali[2], S Schneider[1], B Schmidt[1]
[1]Mannheim Institute of Public Health, Social and Preventive Medicine, Medical Faculty Mannheim of the Heidelberg University, Germany
[2]Department of Health Sciences, University of York, York, UK
Contact: diana.sonntag@medma.uni-heidelberg.de

An increased consumption of energy-dense, nutrient-poor food and beverages as a result of a changing obesogenic environment contributes substantially to the increasing prevalence of childhood overweight and obesity. Current evidence reviews have solemnly focused on food promotion as environmental influence on dietary determinants of obesity in young children. This paper reviews the evidence on the influence of the food industry on a couple of dietary-related environmental factors of childhood overweight and obesity. A systematic search of nine online databases using key search terms identified 1,900 articles. Of these only thirty-seven articles met the inclusion and quality criteria. A narrative synthesis of the reviewed studies revealed six key obesogenic environments by which the food industry possibly influences obesity-related dietary behaviors in young children. These were schools, retailers, mass media "television", mass media "internet", home and promotional campaigns. Identifying these obesogenic environments is critical for monitoring and controlling of the food industry, the development of effective environmental-level interventions to prevent childhood overweight and obesity and to identify knowledge gaps to be addressed in future research.

Key messages

- We found six key obesogenic environments in which the evidence is growing that the food industry influences dietary behaviours in children: School, TV, Internet, Home, Retailers, Promotional Campaigns
- Our findings point to the need to shift from child-centric perspective to an upstream perspective that takes into account the direct influence of key obesogenic food environments on children

Lack of parental rules increases the risk for high intake of soft and energy drinks in adolescents

Jana Holubcikova

J Holubcikova[1,2]*, P Kolarcik*[1,2,3]*, A Madarasova Geckova*[1,2,3]*, JP van Dijk*[1,3,4]*, SA Reijneveld*[5]
[1]Kosice Institute for Society and Health, Safarik University, Kosice, Slovakia,
[2]Department of Health Psychology, Faculty of Medicine, Safarik University, Kosice, Slovakia,
[3]Olomouc University Society and Health Institute, Palacky University, Olomouc, Czech Republic,
[4]Department of Community & Occupational Medicine, University Medical Centre Groningen, University of Groningen, The Netherlands,
[5]Department of Community & Occupational Medicine, University Medical Centre Groningen, University of Groningen, The Netherlands
Contact: jana.holubcikova@upjs.sk

Background

Consumption of soft drinks and energy drinks is very popular among adolescents across Europe. High and regular intake of these beverages has been shown to be associated with negative health consequences among adolescents. Parental behaviour has been identified as a factor influencing eating behaviour of their children. Therefore, the aim of this study was to explore the association between parental rule setting on eating and the intake of soft drinks and energy drinks.

Methods

The data from representative sample of Slovak adolescents (N = 2,765; mean age: 14.4; 50.7% boys) from the 2014 Health Behaviour in School-aged Children cross-sectional study were analysed. The association between the lack of parental rule setting on eating and frequent soft drinks and energy drinks consumption was assessed using logistic regression.

Results

More than 20% of the adolescents reported frequent soft drinks and energy drinks consumption. This frequent consumption was associated with a lack of parental rule setting on eating (Odds Ratio/95% Confidence Intervals: 1.93/1.56–2.38 and 2.15/1.72–2.70, respectively).

Conclusions

A lack of parental rule setting on eating was strongly associated with frequent soft drinks and energy drinks consumption. This indicates a need for interventions aimed at parents which may modify eating habits of adolescents.

Key messages

- Adolescents' soft drinks and energy drinks consumption is high
- A lack of parental rule settings on eating is associated with a higher consumption of these beverages

Screening risk factors of type 2 diabetes in adolescents in school settings

Andrea Lukács

A Lukács[1]*, E Kiss-Tóth*[1]*, A Csordás*[2]*, L Barkai*[3]
[1]Faculty of Health Care, University of Miskolc, Miskolc, Hungary,
[2]Hungarian Association of Health Visitors, Budapest, Hungary,
[3]Faculty of Health Care, University of Miskolc and Velkey László Center for Child Health, Miskolc, Hungary
Contact: lukacs.andrea@uni-miskolc.hu

Background

Due to the epidemic of obesity in children and adolescents, type 2 diabetes (T2D) means a growing public health problem in pediatric practice. There are some risk factors that are associated with an increased risk for developing diabetes in youths. The aim of our study was to explore the high-risk adolescents for T2D with the help of health visitors working in school settings, and provide them with the requisite health care they need.

Methods

Questionnaires were completed about 5538 overweight and obese adolescent students (2922 males and 2616 females) all over the country with the assistance of health visitors. Students' ages were between 12 and 19 years. If their BMIs were over 85 percentile and had any two of the following risk factors: family history of T2D in first- or second-degree relative, Acanthosis nigricans, hypertension, dyslipidemia or polycystic ovary syndrome (in females), they were considered to be at high risk for developing of T2D.

Results

Using the National Pediatric Health Chart we found 3962 students, including 2037 males (14.19 ± 3.51 y/o) and 1923 females (14.03 ± 2.21 y/o) whose BMIs were over 85th percentile. There were 512 adolescents (262 males and 250 females) (12.9%) who had at least two risk factors and were considered to be at increased risk for developing of T2D. There was no significant difference between males and females regarding the risk for the disease (Chi-square test). We observed significant differences between adolescents born preterm and term (X2 (1, N = 3896) = 4.292, p = 0.047), and living urban or rural environment (X2 (1, N = 3960) = 5.520, p = 0.022). Adolescents born preterm and living in urban environment are more likely to be at high risk for developing of T2D than their peers.

Conclusions

One of the major risk factors for T2D in childhood is obesity. It is hard to control birth weight and living environment, but there is increasing evidence that lifestyle modification can prevent or delay progression to T2D. This population-based screening data highlights the need of the public health approach. Elementary and secondary educational institutions may serve as the most suitable location where a preventive protocol can be developed.

Key message

- The prevention or delay the onset of T2D is a public health concern in childhood. Early screening and primary intervention are essential, and school settings seem to be an appropriate place for it

Association of food intake and body mass index among 6 to 12 year old Swiss children

Suzanne Suggs

S Suggs[1]*, S Della Bella*[1]*, P Marques-Vida*[2]*, N Rangelov*[1]
[1]Institute of Public Communication (ICP), Università della Svizzera Italiana, Lugano, Switzerland
[2]Faculté de biologie et médecine,UNIL-CHUV, Lausanne, Switzerland
Contact: suzanne.suggs@usi.ch

Background

Together with physical activity, eating behavior is one of the primary determinants of a child's risk of obesity. Yet, previous studies concerning the association between a child's body mass index (BMI) and their food intake have provided mixed findings. This study aimed to understand whether pediatric overweight and obesity are associated with eating certain food items.

Method

We work with a sample of 607 Swiss children living in the Canton Ticino, who enrolled in the FAN project – (Family, physical Activity and Nutrition) and completed a 7-day food diary in 2010. These data were used to calculate the daily average consumption for eight food groups. Height and weight of the children were reported by their parents and used to calculate the children's BMI according to the criteria of the U.S. Centre for Disease Control and Prevention. Using multivariate linear regression models, we investigate the existence of an association between a child's BMI and their daily consumption of certain foods, including gender, age of the child, BMI and education of the parent as control variables.

Results

In our sample, overweight and obese children do not differ from healthy weight children in terms of daily consumption of fruit, vegetables, dairy and meat. Yet, compared to healthy weight children, overweight and obese children reported a higher consumption of fish (ß = 0,047; SE = 0,022) and lower consumption of sweets, salty snacks and sugary drinks (SSD) (ß = −0,316; SE = 0,122), cereal (ß = −0,184; SE = 0,064), eggs (ß = −0,030; SE = 0,016).

Conclusions

Swiss overweight and obese children do differ from healthy weight children in terms of the daily consumption of SSD, cereals, fish and eggs, though some results may appear puzzling (such as the inverse association between the consumption of SSD and being overweight/obese). The paper highlights and discusses the possible methodological and substantive reasons behind these results.

Key message

- Swiss overweight and healthy weight children eat a comparable amount of fruits and vegetables. Programs promoting healthy diet in overweight children may be overlooking key determinants of weight

Does parental knowledge mediate the role of parental control and parental closeness in alcohol use?

Ondrej Kalina

O Kalina[1], *M Bacikova-Sleskova*[1], *M Brutovska*[2], *O Orosova*[1]
[1]P.J. Safarik University in Kosice, Faculty of Arts, Department of Educational Psychology & Psychology of Health, Slovak Republic
[2]P.J. Safarik University in Kosice, Faculty of Arts, Department of Psychology, Slovak Republic
Contact: ondrej.kalina@upjs.sk

Parental processes play an important role in the health risk behaviour of adolescents. From the full range of possible processes, parental knowledge (PK) seems the most reliable protective factor in alcohol use (AU). However, the path as to how parents receive this information and in turn decrease AU is still not clear. Therefore, this study aims to understand how PK is related to AU by exploring the direct and indirect effect of parental closeness (PCL) and control (PC) on AU through PK and to explore if either the paternal or maternal process has a different effect on boys/girls.

Cross-sectional representative data from elementary schools were used (N = 2769, M = 14.3 years, SD = 0.62, 49% boys). Parental processes were measured using the Adolescent Family Process Measure. Alcohol use was measured by a group of descriptive items. Structural equation modelling was used for data analysis.

One drink or more and being drunk at least once in the last month was reported by 51% / 20% of boys and 46% / 16% of girls respectively. Regarding the direct effects, significant negative associations were found between PK and (i) AU and (ii) PCL, but PC was positively associated with AU. The analysis confirmed the indirect effects of PC (males: $\beta = -.132$; S.E. = .015; p = .009; females: $\beta = -.117$; S.E. = .013; p = .023) and indirect effect of PCL (males: $\beta = -.082$; S.E. = .016; p = .005; for females: $\beta = -.125$; S.E. = .014; p = .015) through PK. These results hold for both processes from mother/father and for girls/boys as well.

Both PC and PCL were found as potential sources of PK which in turn mediate the associations of both processes on AU. Moreover, parents should focus more on actions which promote family closeness rather than control as direct PC may be perceived as a threat of an adolescent's autonomy and identity which may increase their AU. Therefore, it may be concluded that PK plays a key role in alcohol use reduction and it matters how the parents get the information.

Key messages

- Parental control and closeness may serve as protective factors in alcohol use when they are mediated through parental knowledge
- However, only pursing direct control may increase alcohol use among adolescents

E-health app to reduce binge drinking among adolescents and young adults: the D-ARIANNA Project

Alessandro Schivalocchi

A Schivalocchi[1], *D Carretta*[2], *F Bartoli*[2], *C Crocamo*[2], *G Carrà*[3]
[1]School of Specialization in Hygiene and Preventive Medicine, University of Milano-Bicocca, Italy
[2]Department of Translational Medicine and Surgery, University of Milano-Bicocca, Italy
[3]Division of Psychiatry, University College London, London, UK
Contact: a.schivalocchi@campus.unimib.it

Background

Binge drinking (BD) is a common and hazardous pattern of alcohol consumption especially among adolescents and young adults. Although heavy episodic drinking has severe consequences, youngsters often do not recognize it as problematic. E-health interventions have given evidences to be useful in reducing alcohol misuse among young people (Paschall et al., 2011). This study aims at testing if a risk estimation model for BD embedded in an e-health app can improve decision making related to this behaviour. The name chosen for our app, which is also the name of the whole project, is D-ARIANNA, acronym that stands for Digital Alcohol RIsk Alertness Notifying Network for Adolescents.

Methods

Literature was searched for evidence about risk factors for BD. Identified risk and protective factors have been used to develop a statistical model estimating current risk for BD. Risk measures (odds ratios) were so collected and pooled and the model was finally integrated in an application for smartphones and tablets. The tool was tested among young adults and data about previous and subsequent BD episodes were collected.

Results

Analyses show that our tool, now available for download on App Store and Google Play, is effective in reducing BD episodes and increasing self-awareness about the negative consequences of BD. In fact, young people who self-administered D-ARIANNA reported reduced BD rates at follow up (37% vs. 18%).

Conclusions

Our data agree with the positive impact that e-health technologies have on young people. Easily available e-health technologies may be useful for health interventions for individuals of young age.

References: Paschall MJ, Tamar A, Christopher LR, Robert FS (2011). Evaluation of an Internet-based alcohol misuse prevention course for college freshmen. Findings of a randomized multi-campus trial. American Journal of Preventive Medicine, 41(3): 300–308.

Key messages

- Our e-health app can really contribute to reduce BD which is a dangerous pattern of alcohol consumption having drawbacks on the development of young people's CNS (cognitive and behavioural functions)
- Our tool is versatile: since innovative, it is attractive and useful for youngsters (more exposed to BD); being preventive and Evidence-Based, it is worthwhile for parents and physicians at large

Factors associated with cigarette smoking among Slovak schoolchildren

Olga Orosova

O Orosova[1], *M Berinsterova*[2], *M Bacikova-Sleskova*[1], *A Janovska*[1], *B Gajdošova*[1], *M Miovsky*[3]
[1]Department of Educational Psychology and Health Psychology, Faculty of Arts, Pavol Jozef Safarik University in Kosice, Slovak Republic
[2]Department of Psychology, Faculty of Arts, Pavol Jozef Safarik University in Kosice, Slovak Republic
[3]Department of Addictology, First Faculty of Medicine, Charles University in Prague and General University Hospital in Prague, Czech Republic
Contact: olga.orosova@upjs.sk

Background

School-based prevention programs based on the enhancement of life skills and social influence theory seem to be promising. Firstly, the incidence of risk factors associated with the increase of the number of smokers among schoolchildren was investigated and secondly, the effect of the European school-based social influence intervention 'Unplugged' on schoolchildren' s smoking.

Methods

Elementary schools (n = 60, including 1295 schoolchildren, 53.4% girls, Mean age = 11.52, SD = 0.61) were randomly assigned to an experimental (Unplugged curriculum spread over 12 weeks) or to a control condition. Data concerned with schoolchildren's smoking status (0 = never/1 = smokers, with smoking experience), normative beliefs, risk perceptions concerning smoking, availability of cigarettes, mother/father smoking, perceived parental approval, parental knowledge related to their children's behavior was collected before (pre-test) and three months after the end of the intervention (post-test). Logistic regression models were used for the data analyses.

Results

Over the study period, the prevalence of smokers significantly increased from 15.4% to 24.2% ($p < 0.001$). Smoking was more likely among boys (95% CI = 0.32–0.92, $p < 0.05$), particularly among those with a higher level of normative beliefs (95% CI = 2.16–4.25, $p < 0.001$), availability of cigarettes (95% CI = 1.16–1.65, $p < 0.001$), and among those with a lower level of parental knowledge (95% CI = 1.09–1.92, $p < 0.05$) at the pre-test. Only normative beliefs explained the increase of the number of smokers (95% CI = 1.90–4.06, $p < 0.001$) at the post-test. The short-term effect of the Unplugged intervention on schoolchildren's smoking was not confirmed.

Conclusion

The repeated measures demostrated the significant increase of the number of smokers during the short time of period, and the contributions of normative beliefs to schoolchildren' s smoking status.

Key messages

- Normative beliefs were the strongest predictor of smoking status
- Unplugged's short-term effect on schoolchildren's smoking status was not found

Mediators of parental smoking behaviour and smoking experience of early adolescents

Maria Bacikova-Sleskova

M Bacikova-Sleskova, J Benka, O Kalina, O Orosova
Department of Educational Psychology and Psychology of Health, Faculty of Arts, P.J. Safarik University, Kosice, Slovak Republic
Contact: maria.bacikova@upjs.sk

Background

Parental smoking (PSm) has been associated with adolescent smoking (ASm) in many studies. However, less is known about the possible mediation of this association. Furthermore, examining early adolescence specifically as a time of first experimenting with smoking has been neglected. Several previous studies have suggested that smoking parents are less strict with regard to ASm and adolescents with smoking parents tend to affiliate with smoking peers. Therefore, the aim of this work was to examine whether PSm is associated with ASm only directly or also indirectly via parental acceptance of ASm and via affiliating with smoking peers.

Methods

Within the first wave of the upcoming longitudinal study, a representative sample of 1096 early adolescents (mean age 11.52; SD = 0.61; 54.3% girls) indicated their smoking experience (never versus other), smoking status of their mother and father, perceived parental acceptance of their smoking and estimated amount of smoking friends. Logistic and linear regressions and mediational analyses were used.

Results

Parental smoking was directly associated with adolescents smoking ($B = 0.877$, $p \leq .001$ for fathers; $B = 0.917$, $p \leq .001$ for mothers). Moreover, a partial indirect effect was confirmed using a Sobel test via smoking friends ($Z = 3.98$, $p \leq .001$ for fathers; $Z = 3.67$, $p \leq .001$ for mothers) and via perceived father's acceptance of ASm ($Z = 2.18$, $p \leq .05$) although not mother's acceptance.

Conclusions

The direct association of paternal and maternal smoking with ASm could be attributed to the social modeling of parental behaviour based on social learning theory. Moreover, the indirect effect has been confirmed in our study. PSm seems to be associated with the amount of smoking friends their offspring has and perceived parental acceptance of smoking (fathers only) that in turn affects ASm. Public health practicioners should take into consideration the fact that among early adolescents, the direct modeling of PSm is highly important for their own smoking experimentation.

Key messages

- The effect of parental smoking on adolescents's moking is partially mediated via affiliation with smoking peers
- Adolescents perceive their smoking fathers, as more accepting of smoking which in turn is associated with their own smoking

Alcohol consumption among adolescents

Ingrid Tripković

I Tripković[1], M Polić-Vižintin[2], N Gjurašković[1], I Bočina[1], J Ninčević[1]
[1]Public Health Institute of Split and Dalmatia County, Split, Croatia
[2]Andrija Štampar Teaching Institute of Public Health, Zagreb, Croatia
Contact: ingrid_tripkovic@net.hr

Background

Alcohol is believed to be the oldest drug known to man and presents major public health issue. Adolescents grow up in an alcohol friendly environment, with alcohol representing inevitable aspect of important social events. Adolescents have extremely low alcohol tolerance, causing potentially dangerous reactions to organism. Harmful effects of alcohol in adolescents are primarily related with traffic accidents, delinquent behavior and offences or crime. The study was designed in order to get the objective data regarding alcohol abuse in adolescents in the city of Split, Croatia.

Methods

This is a cross-sectional study which included 2799 school children divided in two age groups: 1074 primary school children (aged 14–15) and 1725 high-school adolescents (aged 18–19). The questionnaire was anonymous.

Results

It was found that 63% of primary school children and 95% of high-school adolescents were consuming alcohol. Moreover, according to this study, 2% of primary school children and 32% of high-school adolescents reported getting drunk for more than 10 times. In the group of primary school children who experienced alcohol drinking, ''binge drinking'' experience was confirmed by 31.2% of them, and also by 52% of high-school adolescents. When purchasing alcohol, 54% of primary school children were not asked about the age.

Conclusion

The results of this study indicate necessity of education on harmful effects of alcohol. The education should comprise all persons that participate in life and education of adolescents. More consistent implementation of laws prohibiting minors from obtaining alcohol from all kind of shops is necessary.

Key messages

- The society is also responsible for alcohol availability to minors
- Advertising of alcohol products is extremely sophisticated and persuasive, and contributes to adolescents' alcohol abuse

A longitudinal effect study of contract signing for preventing alcohol use among Swedish children

Susanna Geidne

C Bortes, S Geidne, C Eriksson
Faculty of Medicine and Health, School of Health and Medical Sciences, Örebro University, Örebro, Sweden
Contact: susanna.geidne@oru.se

Background

Around 40% of the primary schools in Sweden have programs to prevent alcohol and tobacco use. One popular program is carried out by the Non-Governmental Organization SMART. The aim is to prevent or postpone alcohol, tobacco and other drug use among children through positive reinforcement and signing of contracts. The contract in this longitudinal study also contains items on good conduct behavior. Are there differences in youth problem behaviors between those who signed the contract all years versus those who signed the contract shorter time? What factors characterize those who signed the contract all the years compared to the others?

Methods

Students in five schools in a middle-sized municipality in Sweden answered class-room questionnaires in three waves: 7th (n = 432), 8th (n = 458), and 9th (n = 422) grade. Response rates were 88%. Students are divided into three groups, based on response at T3 on how many years of contract signing: long-attendees, short-attendees, sporadic- or non-attendees. A repeated measure ANOVA was conducted to analyze changes over time. Binge drinking was the outcome measure in this analysis. Identifying predictors for duration of the contract signing will be analyzed with multiple logistic regressions.

Results

Short-attendees, 40%, signed contract only two to four consecutive years starting in 4th grade. Long-attendees, 22.5%, signed contract five to six years. Sporadic- or non-attendees, 20.5%, signed contract only in some non-consecutive, or none of the years. 17% missing-response. Long-attendees have significant lower levels of binge drinking in 9th grade (M = 1.72) compared to short-attendees (M = 2.43) and sporadic- or non-attendees (M = 2.41). F(2,408) = 9.52, p = <.001.

Conclusion

Promising results were found regarding binge drinking for students that were long-attendees in the program. Further analysis of different outcomes and predictors, mediators and moderators is on-going.

Key messages

- Schools are an important setting for alcohol and tobacco prevention
- There is a need for longitudinal evaluations of preventive programs in national contexts

Reductions on Inequalities in Secondhand Smoke Exposure at Home among Children in Taiwan

Baai-Shyun Hurng

SC Liu, FC Chen, KH Wang, YH Lin, BS Hurng
Health Promotion Administration, Ministry of Health and Welfare, Taichung, Taiwan
Contact: hbs@hpa.gov.tw

Background

Due to the most recent amendments of the Tobacco Hazards Prevention Act in Taiwan, secondhand smoke (SHS) exposure among nonsmokers has declined substantially over time. However, the SHS exposure of children at home remains an issue since it could cause numerous health problems in infants and children and there is no risk-free level of exposure to SHS. The aim of this study was to explore socioeconomic and geographic inequalities in SHS exposure at home among children in Taiwan.

Methods

This study used data from the 2009 and 2013 Taiwan's National Health Interview Survey for analysis. Probability sample of children under the age of 12 years were included for analysis. Children's SHS exposure was assessed by their main care giver's response to the question ''In the past week, did the child over secondhand smoke at home?'' Health Disparities Calculator (HD*Calc), a methodologically rigorous tool, was used to examine inequalities in children's SHS exposure across socioeconomic and geographic groups.

Results

The prevalence rates of children under 12 years of age exposed to SHS at home changed from 32.5% in 2009 to 26.1% in 2013. For socioeconomic status, children whose father or mother had higher level of education had a lower prevalence of SHS exposure at home. Compared with children in remote areas, the prevalence rates were lower in most affluent metropolitan regions. As for inequality measures, socioeconomic status defined by parent's education was the most pronounced. The indexes of disparity (IDisp) of father's education decreased from 456.2 in 2009 to 446.1 in 2013. For mother's education, IDisp were 525.2 in 2009 and 349.0 in 2013, respectively. Besides, IDisp due to different areas of residence were 45.7 in 2009 and 80.0 in 2013, respectively.

Conclusions

The results of this study showed that there was a decline in children's SHS exposure from 2009 to 2013. However, the gaps between different socioeconomic status and geographic location were not significantly reduced. Obvious inequalities between different geographic location and socioeconomic status were observed, especially for inequalities due to parent's education. Therefore, education on health harm of SHS to parents or care giver and advocates for smoke-free home are essential. Actions are needed to reduce inequalities in SHS exposure at home among children.

Key messages

- There was a decline in children's secondhand smoke exposure from 2009 to 2013
- The gaps between different socioeconomic status and geographic location were not significantly reduced

Use of prescribed and self-medicated drugs among adolescents from the GINIplus/LISAplus birth cohorts

Salvatore Italia

S Italia[1], *SB Wolfenstetter*[2]
[1]Department of International Health, School for Public Health and Primary Care (CAPHRI), Faculty of Health, Medicine and Life Sciences, Maastricht University, Maastricht, The Netherlands
[2]Helmholtz Zentrum München, German Research Center for Environmental Health, Institute of Health Economics and Health Care Management, Neuherberg, Germany
Contact: salvatore.italia@maastrichtuniversity.nl

Background

According to available publications, the prevalence of drug use among adolescents may be quite high in Germany and other European countries as well. The objective was to analyse drug use among 15-year-old adolescents in relation to over-the-counter drugs (OTC), prescription drugs (Rx), and the most reported therapeutic drug categories.

Methods

Data on drug utilization (within the past four weeks) were collected for 4,677 adolescents from two German birth cohorts (GINIplus and LISAplus, 15-year follow-up) using a self-administered questionnaire. The drugs were grouped into OTC drugs and Rx drugs and were classified according to the anatomical therapeutic chemical classification system. Predictors were analysed with a logistic regression model including four independent variables (gender, study area, maternal education, and parental income). Drug prices were tracked or conservatively estimated.

Results

About 71% of the reported 3,873 drugs were OTC drugs, and 29% were Rx drugs. The 4-week prevalence for using any type of drug was 41.1%. Drug categories with high prevalence rates of use were antiinflammatory drugs (11.2%), analgesics (6.6%), and antiallergics (4.8%).

OTC drug use was predicted by female gender (OR = 1.50, p < 0.0001) and higher maternal education (OR = 1.50, p = 0.0007); highest vs. lowest education level). The average prices of one drug package were €8.33 (OTC) and €53.95 (Rx). Maternal education was positively associated with the use of antiallergics and anti-inflammatory drugs and inversely associated with methylphenidate use. The use of drugs for thyroid therapy was predicted by lower parental income.

Conclusions

The use of OTC drugs among adolescents from the analysed cohorts is very popular and is associated with socioeconomic factors such as maternal education. This has to be considered when deciding about the exclusion of OTC drugs (normally used for self-medication) from reimbursement or the (further) liberalization of drug sales.

Key messages

- The 4-week prevalence of drug use among adolescents from the GINIplus and LISAplus birth cohorts was very high (41%), and more than two thirds of the drugs utilized were over-the-counter drugs
- Parental income did not predict pediatric use of over-the-counter drugs or prescription drugs, whereas higher maternal education was positively associated with the use of over-the-counter drugs

Outdoor playground use for active healthy play in Toronto, Canada

Linda Rothman

L Rothman, T Kim, A Macpherson
Faculty of Health-School of Kinesiology & Health Science, York University, Toronto, Ontario, Canada
Contact: linda.rothman@sickkids.ca

Background

Outdoor playgrounds provide environments where children can engage in active healthy play and develop important physical, cognitive and social skills. However, little is known regarding children's play in outdoor playgrounds. Features of playgrounds which encourage use and are safe must be determined to better design these play spaces. This study describes variations in playground use in Toronto, Canada.

Methods

A naturalistic study was done from August-November 2014. Observations of children were conducted at 20 minute intervals, 4 different times at 50 purposively selected public playgrounds. Descriptive analyses were conducted to describe use patterns by playground features, children's age, and visible disability.

Results

There were 2,154 observations of children, with no differences in the numbers of children by the number of play structures available. More children played on rubber surfaced playgrounds (76/playground), with little difference found between sand and woodchips (42 versus 35/playground respectively).Multiuse senior structures, designed for 5–12 years (28%), swings (20%) and multiuse junior structures for those <5 years (18%) were most utilized. Multiuse senior structures were most often used by children < 5 years (69%). Accessible equipment was available at 10 (20%) of playgrounds; however, no children with visible disabilities were observed.

Conclusions

Variety in equipment is desirable as no single piece of equipment dominated use. However, greater numbers of play structures were unrelated to increased use, which suggests that outdoor natural environments encourage play generally and supports the need for natural elements in playgrounds. Young children were attracted to senior equipment which has injury implications. Accessible equipment was not used by children with disabilities. Recommendations include developing fully accessible flagship playgrounds at specific locations, rather than many playgrounds with limited accessible features.

Key message

- A variety of playground equipment is desirable with the incorporation of natural elements.
- Equipment was not always used as intended by young children and children with visible disabilities

Does quality of school outdoor environment support healthier behaviour of adolescents?

Dagmar Dzurova

D Dzurova[1], J Spilkova[1], M Lustigova[1], P Štych[2]
[1]Department of Social Geography and Regional Development, GeoQol, Faculty of Science, Charles University in Prague, Czech Republic
[2]Department of Applied Geoinformatics and Cartography, Faculty of Science, Charles University in Prague, Czech Republic
Contact: dzurova@natur.cuni.cz

Background

Results based on European School Survey Project on Alcohol and Other Drugs (ESPAD) individual data and their analysis revealed problematic issues in the life style of Czech adolescents related to substance use. However, there is still not enough information about the influence of the geographic conditions, mainly the school environment, on the health risk behaviour. A new questionnaire was thus created to reveal these conditions, focused on more detailed characteristics.

Methods

The data from web-based survey among students aged between 14–15 years from 35 elementary schools were used. The data were collected during 2013–2014 in different Czech cities (N = 16) and the questionnaire was completed by 1,025 students. Respondents were asked about their perception of the school outdoor environment and health-risk behaviour (HRB) such as daily cigarettes smoking, binge alcohol drinking (5 or more drinks on one occasion) during the last month and marijuana use during the last year. Objective school environment was described by two characteristics - public green space and traffic intensity based on GIS methods (computed from GIS layers in100 m radius from school building).

Results

Prevalence of daily smoking was 14.2%, binge drinking 34 % and marihuana use 22.4 %. More than a half of adolescents (55.3 %) did not engage in any type of considered health risk behaviour, 25.6 % reported one risk, 12.3 % two risks, and 6.8 % three risks. Thus, in sum 21.1% of Czech adolescents were engaged in multiple risk behaviour forms. The School Health opportunity index (HOI) was constructed on both, subjective perception and objective indicators of school environment. Prevalence of multiple-health risk behaviour was significantly associated with school HOI.

Conclusions

Our results suggest that the level of school HOI was associated with HRB.

Key messages

- The health opportunity index was primarily constructed to be offered to local planning authorities for supporting healthier behaviour of adolescents through improvements in outdoor school environment

A multidisciplinary approach to increase the pediatric HIV/AIDS treatment rates in Tanzania

Vamsi Vasireddy

V Vasireddy, S Kimambo
Centers for Disease Control and Prevention (CDC), Dar es Salaam, Tanzania
Contact: yjz9@cdc.gov

Background

Tanzania has the second largest burden of children yet to be started on treatment when applying the 2010 World Health Organization (WHO) eligibility criteria. In partnership with the President's Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund, Tanzania has 34,524 children on antiretroviral treatment at the end of FY2013, representing 26.5% coverage based on a UNAIDS estimate. Pediatric antiretroviral treatment coverage in Tanzania lags behind the global coverage estimate of 34%. Additionally, there exists a wide disparity in Anti-retroviral Treatment (ART) coverage between adults and children with an adult ART coverage estimate in Tanzania of 68%.

Approach

In order to increase the pediatric ART coverage, PEPFAR and the Children's Investment Fund Foundation (CIFF) jointly announced the Accelerating Children's HIV/AIDS Treatment (ACT) Initiative which aims to double the number of children on HIV treatment across 10 priority countries, including Tanzania. The Tanzania ACT initiative aims to double the number of children receiving ART using a multidisciplinary approach.

The ACT approach targets multiple sectors - health, education, social welfare, gender, media, infrastructure, and finance. By including health – specifically pediatric HIV/AIDS – in a multi-sectorial approach, the initiative aims to double the treatment rates among Tanzanian children. Some of the approaches include lowering the age of consent for HIV testing and counseling, integrating HIV education in to curricula, engaging community health workers for outreach and home-based care and treatment services, strengthening referral systems across sectors, and improving the supply chain systems to ensure adequate and timely supply of ART.

Discussion

The presentation will present a multi-disciplinary approach targeting health across policies and sectors. Audience will discuss the pros and cons of using an approach that targets health across sectors and policies.

Key messages

- Pediatric HIV/AIDS treatment rates are lagging behind much of sub-Saharan Africa and newer targeted initiatives are beginning to address the problem
- Increase Pediatric HIV/AIDS treatment rates in Tanzania is a multi-disciplinary approach focusing on health and other sectors, including education, finance, media, and gender-based services

Self-rated health and subjective social status among Swedish adolescents

Junia Joffer

J Joffer[1], *R Flacking*[2], *L Jerdén*[1]
[1]Department of Public Health and Clinical Medicine, Epidemiology and Global Health, Umeå University, Umeå, Sweden,
[2]School of Education, Health and Social Studies, Dalarna University, Falun, Sweden,
[3]Department of Public Health and Clinical Medicine, Epidemiology and Global Health, Umeå University, Umeå, Sweden
Contact: junia.joffer@Ltdalarna.se

Background

It is well known that a persons' social position is closely related to health status. Social status is most often measured with socioeconomic parameters like education, income and occupation. From a youth perceptive, this implies analyzing the socioeconomic status of the parents. In recent years, it has been argued that measurements where the adolescents own position is measured, might be more important for health. Hence, the aim of the study was to investigate associations between self-rated health, subjective social status and parental educational level in adolescence.

Methods

A quantitative approach with cross sectional survey data from 705 adolescents in upper secondary school (17–18 years old) in Sweden. Self-rated health was measured by a single-item question with five response options. Subjective social status was measured by respondents rating their social position in comparison other pupils in school on a ladder with ten steps. Data on parental educational level (low, medium and high) was collected from Statistics Sweden, the official national statistical database. Associations were analyzed with Mann-Whitney U-test and Chi-square test.

Results

Self-rated health was strongly associated with subjective social status in school, both among boys (p-value <0.001) and girls (p-value <0.001). The proportion of adolescents with 'very good' self-rated health increased with each higher step on the subjective social status ladder. There was no statistical significant association between self-rated health and parental educational level, or between subjective social status and parental educational level.

Conclusions

In this cohort, subjective social status was closely associated to adolescents' self-rated health. The concept of subjective social status needs to be further studied among adolescents.

Key messages

- Subjective social status was strongly associated to self-rated health among Swedish adolescents
- Subjective social status among adolescents was not associated to their parents' educational level

Associations between food intake and obesity related biomarkers in healthy children and adolescents

Kristina Hoffmann

J HIlger[1], *T Becker-Gruenig*[1,2], *I Motoc*[1], *K Hoffmann*[1]
[1]Mannheim Institute of Public Health, Social and Preventive Medicine, Medical Faculty Mannheim, Heidelberg University, Mannheim, Germany
[2]Department of Paediatrics, University Medicine Mannheim, Mannheim Medical Faculty, Heidelberg University, Mannheim, Germany
Contact: kristina.hoffmann@medma.uni-heidelberg.de

Background

The obesity prevalence in children and adolescents has increased worldwide during the past 30 years. The metabolic consequences of childhood obesity have been demonstrated and obesity-related biomarkers have been classified. Identifying associations between dietary factors and such biomarkers could help to detect nutrition-related metabolic changes early in life. These could serve as anchor points in developing public health strategies to prevent childhood obesity.

Methods

A systematic literature review following the PRISMA Statement was conducted to identify eligible studies, which examined associations in children and adolescents between the intake of foods or macronutrients and 13 obesity-related biomarkers (e.g. blood glucose, insulin, blood lipids). Our search in Pubmed / Medline resulted in 2,053 hits. After the selection process 69 articles were included reporting 926 single observations on dietary factors and biomarkers.

Results (preliminary): We included 55 articles from cross-sectional studies and 14 articles from longitudinal studies. Quality assessment revealed most articles to be of moderate quality (n = 45; low: n = 25; high: n = 3). Overall, 80.6% of the observations showed no association between dietary factors and the selected obesity-related biomarkers. Considering biomarkers separately most associations (36,5%) were found for C-reactive protein (total n = 52), while for all other biomarkers percentages were below 30%.

Conclusions

The studies included do not support associations of dietary factors with most of the obesity-related biomarkers in children and adolescents. One explanation might be that the markers explored are not appropriate to indicate early metabolic changes due to dietary intake. Problematic is also the moderate and low quality in the majority of studies. Therefore, besides better controlling for potential confounders, enhancing the development of novel methods to assess dietary intake would help to better elucidate the role of nutrients and foods in the early development of obesity.

Key messages

- The majority of the explored obesity-related biomarkers showed no association with dietary factors and might thus not be appropriate to indicate early metabolic changes in healthy children
- Initiatives to enhance the development of novel methods to assess dietary intake are needed to elucidate the complex role of nutrition in the early development of obesity

7.W.O. Poster walk: Health promotion

Gender difference of fall characteristics in the elderly in Taiwan

Yih-Jian Tsai

Yih-Jian Tsai[1], *Yi-Ching Yang*[2]
[1]Aging and Chronic Disease Control Division, Health Promotion Administration, Ministry of Health and Welfare, Taipei, Taiwan
[2]Department of Family Medicine, College of Medicine, National Chung-Kung University and Hospital, Tainan, Taiwan
Contact: y.tsai@hpa.gov.tw

Background

As female share of the population increases with age, gender imbalance at older ages may affect the characteristics of falls and injurious fall events in Taiwan.

Methods

Data of the 2013 National Health Interview Survey (NHIS), collected from those community dweller aged 65 or over, were used to examine the likely gender difference of self-reported fall experience in the previous year in terms of age-specific prevalence of falls, distribution of fall category (one fall, two falls, and three or more falls), and pattern of injurious fall events-including activity, location, body site injured, and self-attributed cause at an injurious fall event. Results were examined with a chi-square test if appropriate.

Results

3,203 adults aged 65 or over, with 53% of females, were interviewed in 2013. Females had a higher prevalence of falls than males (17.5% vs.15.3%), except those aged 70–74. There was no statistically significant gender difference in the distribution of fall category ($p = 0.22$) and the proportion of injurious fall events happening at home/residential area or elsewhere ($p = 0.22$). The most frequent activity at an injurious fall event was riding a motorcycle/bicycle for both genders, and those activities ranking 2nd and 3rd were respectively getting in/out of bed and farming for males, and urination/defecation and bathing for females. The most frequently injured body site at an injurious fall event was lower limbs for both genders, and those body sites ranking 2nd and 3rd were respectively head and upper limbs for males, and upper limbs and head for females. Of these injurious fall events, 38.2% were attributed to environmental causes, with 16.6% to intrinsic causes, and 45.2% to other causes.

Conclusions

The gender difference in the prevalence of falls and pattern of injurious fall events implies the necessity of further study and tailoring fall prevention strategies to the increasing elder population by gender.

Key message

- Gender difference should be taken into consideration in conducting further fall-related study and designing fall prevention strategies for the elderly

'Oh I do like to be beside the seaside' : Oceans and human health and wellbeing

Fiona Mcgowan

F McGowan, M Thorndyke
University of East London, London, UK
Royal Swedish Academy of Sciences & Gothenburg University, Sweden
Contact: f.mcgowan@uel.ac.uk

The field of Public Health and Health Promotion is now seeing the emergence of terms such as "Green Gym" and "Blue gym", coined to describe the sometimes-indefinable health and well-being benefits to be obtained from experiencing proximity to marine environments. Recent evidence indicates that there is a clear increase in "self-reported" good health with increasing proximity to the coast with the quite simple message that better access to a high quality environment is often as important as other better known factors in determining health outcomes.

The relationship between human health/well-being, the coasts and climate change is multi-faceted particularly in the less developed areas of the globe where impacts on fisheries, socio-economic status, food and nutritional security are particularly acute. These are becoming key issues in the marine environment, although the discipline remains fragmented. A key enabling action needed to overcome this fragmentation is for marine scientists to engage much more with the Social Sciences, especially "Health Promotion" and other cognate areas of Public Health.

Increasingly health outcomes can be directly linked to the environment – be that the physical, social, working, living and leisure – those 'places' where the everyday lives are enacted and those which ultimately impact life chances. Place and space have become central considerations in health promotion – terms, which refer to far more than geographical location, rather the spatial context in which lives are lived. Included here is the way in which human experience interacts with the natural environment and how environmental or structural factors determine human behaviour.

The recent FPH report ('The Great Outdoors; How our Natural Health Service uses Green Space to improve well-being': http://www.fph.org.uk/uploads/r_great_outdoors.pdf.) emphasized how 'access to nature can significantly contribute to our mental capital and well-being' and cites evidence demonstrating how green (and "blue") space is an important beneficial factor in tackling health and social problems – obesity, mental ill health, anti-social behaviours, health inequality.

This paper highlights the urgent need for greater collaborative research between a wide range of disciplines from marine science to public health.

Key messages

- Recognising the important and diverse relationship between health and wellbeing and the coastal environment
- Highlighting the need for greater interdisciplinary research

Trends in dispensing of strong opioids to the working population of Belgium and Norway (2008–2013)

Karin De Ridder

KAA De Ridder[1], *SL Kaspersen*[2], *J Van der Heyden*[1]
[1]Department Public Health and Surveillance, Scientific Institute of Public Health, Brussels, Belgium
[2]Department of Public Health and General Practice, Norwegian University of Science and Technology, Trondheim, Norway
Contact: karin.deridder@wiv-isp.be

Introduction

The consumption of opioid analgesics has significantly increased in the western world. Belgium and Norway have quite similar regulations concerning the prescription of opioids, but health care is organized in a different way. The aim of this study was to describe the trends (2008–2013) in pharmacy dispensing of strong opioid analgesics to the working population aged 20 to 64 years.

Methods

For Norway, analyses were performed on the population-based Norwegian Prescription Database of the Norwegian Institute of Public Health (www.norpd.no). In Belgium, the data were extracted from a representative random sample (1/40) of the compulsory Belgian health insurance (www.ncim-ima.be). Morphine and opioids from the ATC group N02A with a stronger analgesic potency than morphine were selected: hydromorphone, oxycodone, fentanyl, buprenorphine, piritramide (only Belgium) and ketobomide (only Norway).

Results

In 2013, the mean annual consumption (DDD/1000 inhabitants/day) was 2.13 (95% CI 1.83–2.43) in Belgium and 3.66 (95% CI 3.59–3.73) in Norway. Between 2008 and 2013, the average annual change in Belgium was +4.8% among women and +5.6% among men. In Norway, there was only an increase among women (2.8%). The increases were also significant after adjustment for age. While Norway only had an increase in the oldest age group (55–64), Belgium also had an increase in the middle age group (35–49). Fentanyl was the most often dispensed strong opioid in Belgium. In Norway, oxycodone became more dispensed then morphine.

Conclusions

Although quite similar prescription regulations, trends in pharmacy dispensing of strong opioid analgesics for men differed in Belgium and Norway. Future studies should not only examine the impact of differences in reimbursement and registration systems, but also take into account additional factors such as health care organization and patients' health care trajectories (chronic pain, palliative care, drug addiction).

Key messages

- The mean annual consumption, the pattern and trends in strong opioid dispensing differed between Belgium and Norway despite similar prescription regulations
- This raises research questions on the impact of known factors such as reimbursement and registration systems versus additional explanatory factors such as health care organization and patient flow

Utilization of generic versus brand name psychopharmaceuticals during a ten-year period in Croatia

Marina Polic-Vizintin

M Polić[1], I Tripković[2], D Štimac[3], Z Šostar[1]
[1]Andrija Štampar Teaching Institute of Public Health, Zagreb, Croatia
[2]Teaching Institute of Public Health of Split and Dalmatia County, Split, Croatia
[3]School of Medicine, University of Zagreb, Zagreb, Croatia
Contact: marina.polic-vizintin@stampar.hr

Background

Drug costs increasingly pose a burden upon the otherwise inadequate health care resources and rational drug utilization is an important segment of every national health policy. The aim of this study was to determine distribution and trends in the outpatient utilization of generic versus brand name psychopharmaceuticals and to evaluate the rationality of prescribing psychopharmaceuticals during a ten-year period.

Methods

Using the World Health Organization Anatomical-Therapeutic-Chemical classification/Defined Daily Doses (ATC/DDD) methodology, the number of DDD was calculated from data collected from all Zagreb pharmacies on the number and size of drug packages, during the 2001–2010 period. The ratio of generic and brand name drug costs served as an indicator on assessing the rationality of drug utilization.

Results

Total cost for psychopharmaceuticals increased by 20.1%, more for brand name than for generic agents (32.7% vs. 7.4%). The highest share of generic psychopharmaceuticals as compared with brand name drugs according to DDD per 1000 inhabitants per day (DDD/1000/day) was in the group of psycholeptics (83.6% in 2001 vs. 82.2% in 2010), most in hypnotics and sedatives, and least in antipsychotics. The share of generic psychopharmaceuticals in total drug utilization according to DDD/1000/day decreased by 12%. The greatest decrease was in antidepressants, i.e. by 46% according to DDD/1000/day; and in antipsychotics by 30.9%. In the therapeutic subgroup of mood stabilizers, the share of generic drugs in total drug utilization declined by 32% according to DDD/1000/day.

Conclusions

The lack of uniform national guidelines and the still strong impact of pharmaceutical industry marketing continue favoring the rise in prescribing brand name antidepressants and antipsychotics. Combining the initiatives to lower the price of generics with demand-side measures to enhance their prescribing is important to maximize prescribing efficiency.

Key messages

- There is a potential to achieve some savings with generic psychopharmaceuticals
- Multiple measures are needed to change the physician prescribing habits

Patient Safety in Bosnia and Herzegovina hospitals: First insights and opportunities for improvement

Guido Offermanns

G Offermanns, S Draganovic, A Alispahic
University of Klagenfurt, Institute for Management, Management and economics in health care, Klagenfurt, Austria
Contact: guido.offermanns@uni-klu.ac.at

Background

Patient safety in health care received increased attention from the mid-nineties as a Public Health challenge. Nonetheless it still has a fundamental role in the international public health care and quality improvement debate. Therefore, our contribution represents a pilot project and it belongs to the subject of patient safety in Bosnia and Herzegovina by measuring the grade of patient safety in three hospitals in the district of Una-Sana Canton. It is the first study performed in this country and provides primary and exclusive insights to this important field for patients, health professionals and hospital leadership.

Methods

The research is based on data, which was first collected in an explorative and descriptive study. The latter was found to be more appropriate because of the transferability of results for other hospitals in this area. Individual qualitative narrative interviews were conducted with leading health professionals of the hospitals. The interviews were analyzed by qualitative content analysis. Further, a descriptive study with a selected questionnaire developed by the Agency for Healthcare Research and Quality (AHRQ) was used as basis for further research. The questionnaire was distributed to all hospital staff with a response rate of 20%, so 100 questionnaires could be analyzed. The limitations of the study will be described in the presentation.

Results

The confirmatory factor analysis showed good fit for the model and the questionnaire reliability was also adequate. The outcome dimensions ''overall perceptions of safety'' and ''frequency of event reporting'' both gave significant insights into patient safety in hospitals in Bosnia and Herzegovina. The latter showed, that 32, 3% did not report any events. In this respect, hospital management support for patient safety was scored by 55%. However the overall perception of safety in hospitals was almost 50% positive and 30% negative.

Conclusions

Our study showed overall low patient safety in three hospitals analyzed in the research project. However, it has provided the first insight into the grade of patient safety in hospitals in Bosnia and Herzegovina with various opportunities for improvement.

Key messages

- The results of study support healthcare professionals to start into a change process
- Appropriate strategies and instruments can be established to improve patient safety and quality

Sustainability and development of Healthcare System in Italy: the ''Prevention by Vaccination'' Report

Alessandro Solipaca

A Solipaca[1,2], M Marino[2], M Avolio[3], T Sabetta[2], W Ricciardi[2], ML Di Pietro[2]
[1]National Institute of Statistics, Rome, Italy;
[2]National Observatory on Health Status in the Italian Regions,Institute of Public Health - Hygiene Section, Università Cattolica del Sacro Cuore, Rome, Italy
Contact: solipaca@istat.it

Background

Prevention is aimed at improving the quality and life expectancy, the knowledge about risk and about diseases and the reduction of morbidity and mortality in the population. Vaccination has got a key role in the protection of life and health in pediatric and adult age, undermined by the rationalized expenditure in the health sector and the lack of a correct information. The National Observatory on Health Status in the Italian Regions wrote the "Prevention By Vaccination Report", in order to analyze the state of the art of vaccination through measurable elements, focusing the attention of decision-makers on the need to invest resources in this area.

Methods

A synthesis of the current Italian vaccination offer was performed (immunization calendar established by law or not), along with some international initiatives. A data analysis concerning the incidence of 16 Vaccine Preventable Diseases (VPDs) and immunization coverage rates was also performed. The scientific, social, ethical and economic value of vaccination was explored, also supported by published cost-effectiveness studies.

Results

Concerning the immunization calendar, the autonomy of each Italian Region on the kind of vaccine offered and on the transition from a compulsory to a recommended regime must be underline. Data on incidence of VPDs showed an overall reduction of events during the last years (apart from Meningococcal and Pneumococcal infections). Immunization coverage rates showed an overall decrease. The cost-effectiveness studies revealed positive results.

Conclusions

The Report underline the centrality of prevention in ensuring population health status and healthcare systems sustainability. The presented values should promote the widest dissemination. The possibility and feasibility of the transition from a compulsory regime of vaccination to a recommendation system should be supported by patient empowerment through an evidence-based communication.

Key messages

- Vaccination has got a key role in the protection of life and health in pediatric and adult age, undermined by the rationalized expenditure in the health sector and the lack of a correct information
- Prevention is aimed at improving the quality and life expectancy, the knowledge about risk and about diseases and the reduction of morbidity and mortality in the population

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The negotiation of needs, resources and potentials in an eldercare paradigm of help to self-help

Malene Bødker

M Bødker
Center for Healthy Aging, Department of Public Health, University of Copenhagen, Copenhagen, Denmark
Contact: malb@sund.ku.dk

Background

Due to the growing proportion of older citizens, enabling care modes promoting the idea of 'help to self-help' are receiving increased political attention. By enabling older citizens to care for themselves, enabling care is expected to lower eldercare expenses and improve older people's well-being. In Danish municipalities, enabling care is organized as 8-week courses during which the older citizens participate actively in practical tasks or personal care and thereby gradually become more self-sufficient. This study investigates by which criteria older people's capabilities in relation to enabling care are assessed and on which types and sources of information these assessments are based.

Methods

The study is based on participant observations and semi-structured interviews planned to be carried out from April to December 2015 in two municipal units of the City of Copenhagen. Observations focus on interactions between different types of healthcare professionals involved in enabling care (assessors, therapists, nurses and homecarers), older citizens and their relatives, as citizens go through an enabling care course. Interviews are carried out with the mentioned groups of healthcare professions as well as with citizens and relatives.

Results

Preliminary results indicate that assessments of older people's needs, resources and potentials form the basis of practising enabling care. These, however, are all highly negotiable aspects that are formed in a complex information network of various types of information, e.g. case records, oral information and observations of citizens, that is obtained from various sources, e.g. the citizen, relatives, homecarers, GPs and hospitals.

Conclusion

Enabling care, as played out in a Danish municipal setting, relies on the assessment of older citizens' needs, resources and potentials. These, however, are not stable or measurable variables, but are rather negotiated in a network of information from various present and absent actors.

Key messages

- Assessments of older citizens' needs, resources and potentials form the basis of practising enabling care, but these are all highly unstable and negotiable aspects
- Healthcare professionals' assessments of older people's needs, resources and potentials are based on different types of information from various present and absent actors

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Artlift: Impact on patient mental well-being change of an arts-on-referral programme

Colin Baker

C Baker[1], D Crone[1], E Loughren[1], J Matthews[2], T Dickson[1], S Opher[3], F Clarke-Stone[4]
[1]School of Sport and Exercise, University of Gloucestershire, Oxstalls Campus, Gloucester, UK
[2]Institute of Sport & Exercise Science, University of Worcester, UK
[3]NHS Gloucestershire, Dursley, UK
[4]Gloucestershire County Council, Gloucester, UK
Contact: cmbaker@glos.ac.uk

Background

Social prescribing for health has increased in the past decade over traditional medically-based treatments for patients. In the UK, arts-on-referral interventions provide an alternative and complimentary public health intervention for patients with poor mental health. There is a need to understand the roles these interventions can play for patients with respect to long term well-being. The results of a longitudinal study assessing patients attending an arts-on-referral intervention data is presented together with recommendations.

Methods

ArtLift is an eight week art programme usually delivered in a community or primary care setting and involves art sessions delivered by artists including poetry and painting. The aim of the study was to assess longitudinal participant data including reasons for referral and changes in well-being. Data from patients attending an arts-on-referral intervention within a county in the South West UK was collected from October 2014 to March 2015. Anonymised patient data were assessed for age, gender, ethnicity, employment status, reason for referral to the intervention, number of sessions attended, and programme completion.

Results

Between February 2009 and February 2014 a total of 665 patients were referred to Artlift ranging in age from 19–93 years old ($M = 53.05$, $SD = 16.16$). In total, 390 (57%) patients completed their initial Artlift intervention and an additional 142 (36%) were re-referred to the service. Patients were commonly referred and re-referred with a criterion of stress/anxiety/depression, to improve well-being, or self-esteem and/or confidence. Well-being scores significantly improved for patients initially referred, re-referred once, and re-referred twice to the intervention.

Conclusions

Arts on referral interventions have a potential role in the maintenance of patients' well-being and appears useful as an adjunct to the management of longer term chronic mental health problems for people in primary care at a population level.

Key messages

- Arts-on-referral interventions can provide general practitioners and patients with an effective intervention for the management of longer term chronic mental health problems in primary care
- High attendance and completion rates suggest arts-on-referral interventions provide an attractive and alternative means of supporting patients with poor mental health

Autonomous Self-regulation of Alcohol Use among University Students and its Relevance for Prevention

Jozef Benka

J Benka[1], *O Orosova*[1], *B Gajdosova*[1], *M Bacikova-Sleskova*[1], *M Brutovska*[2]
[1]Department of Educational Psychology and Health Psychology, Faculty of Arts, University of PJ Safarik, Kosice, Slovakia
[2]Department of Psychology, Faculty of Arts, University of PJ Safarik, Kosice, Slovakia
Contact: jozef.benka@upjs.sk

Background

Alcohol use among university students constitutes a serious problem for public health researchers and health professionals. While the research focusing on behaviour change and reduction of alcohol use has established that one of the strongest proximal factors related to alcohol use is the motivation to drink various influences are mediated through these motives. This study will apply Self-determination theory and focus on two types of self-regulation of drinking behaviour (controlled versus autonomous) in relation to alcohol use and motivation to drink.

Methods

University students from Slovakia ($n = 697$) participated in the study (mean age 21.28; $SD = 1.93$; 60% female) and completed questionnaires on alcohol use (AUDIT), motivation to drink (social, mood enhancement, coping, and conformity; DMQ-R) and autonomous self-regulation of drinking behaviour (TSRQ-A). The data were analysed using regression analyses and mediation effect was test by Sobel test.

Results

Firstly, it was found that autonomous self-regulation of drinking behaviour was negatively related to alcohol use after controlling for age and gender ($\beta = -0.194$; $p<0.001$). However, controlled regulation was not significantly related to alcohol use. Alcohol use was found to be significantly related to all four types of motivation to drink with the strongest association with social motive to drink ($\beta = 0.384$; $p<0.001$). Secondly, mediation analysis showed that autonomous self-regulation of drinking behaviour was mediated by social, enhancement and coping motivation to drink ($p<0.001$).

Conclusions

The findings show that autonomous self-regulatory processes of drinking behaviour are relevant with regard to alcohol use of university students. This finding is highly relevant for designing prevention programs for this group. It was also found that autonomous self-regulation of drinking was mediated by motivations to drink which stresses the importance of motivational pathways leading to alcohol use

Key message

- Targeting self-regulatory processes and especially autonomous self-regulation of drinking behaviour could be beneficial for prevention programs among university students

The role of intrapersonal factors in the changes in alcohol use and normative beliefs

Monika Brutovská

Monika Brutovská[1], *Oǐga Orosová*[2], *Andrea Lukács*[3], *Michal Miovský*[4], *Janina Petkeviciene*[5], *Rafael Mikolajczyk*[6]
[1]Department of Psychology, PJ Safarik University in Kosice, Slovak Republic
[2]Department of Educational Psychology and Psychology of Health, PJ Safarik University in Kosice, Slovak Republic
[3]University of Miskolc, Faculty of Health Care, Hungary
[4]Department of Addictology 1st First Faculty of Medicine, Charles University in Prague, Czech Republic
[5]Lithuanian University of Health Sciences, Medical Academy, Faculty of Public Health, Kaunas, Lithuania
[6]Department of Clinical Epidemiology, Bremen Institute for Prevention Research and Social Medicine (BIPS), Bremen, Germany
Contact: brutovska.monika@gmail.com

Background

Alcohol use (AU) is a public health problem among university students. Intervention programs use the changing of descriptive normative beliefs (DNB) to reduce AU. The aim of the study is (1) to confirm the contribution of change in DNB to the change in AU; (2) to investigate whether this association is moderated by self-regulation (SR) or self-determination (SDT).

Methods

The data were collected online from 396 university students ($Mage = 20.8$; $SD = 3.1$; 71.6%females) from 5 countries (SK, HU, CZ, LT, DE) at the beginning of the study (T1) and after one (T2) and two years (T3). Students were asked about AU, SR, SDT, DNB. Data analyses: a repeated measures ANOVA, linear regressions [dependent variable: the change in AU (T3-T1); independent variables: the change in DNB (T3-T1), SR (1st model) or SDT (2nd model) at T1, the interaction of independent variables].

Results

40% of males and 17% of females at T1 drank more than 5 alcoholic drinks on a typical drinking day. The changes in AU and DNB were the same: the increase between T1&T2, the decrease between T2&T3. Only the changes in AU between T1&T2 were significant ($p = .004$). Further, two linear models (1stmodel: SRG; 2ndmodel: SDT as moderator) were made. Both models showed that the increase of DNB [1st model: $\beta = .93$; $p = .005$; 2nd model: $\beta = 1.11$; $p<.001$] contributed to the increase in AU. The individual model showed that the interaction of SR (1stmodel) / SDT (2ndmodel) and changes in DNB contributed to the changes in AU (1stmodel: $\beta = -.77$; $p = .022$; 2ndmodel $\beta = -.96$; $p<.001$). SR and SDT were the moderators of the association between the changes in DNB and the changes in AU. University students with a higher level of SR (also with a higher level of SDT) had a lower increase of AU, but only in the group with the lowest increase of DNB.

Conclusion

The research findings have also shown the importance of increasing the level of SR and SDT in intervention programs based on DNB change.

Key message

- The findings can contribute to intervention programs based on the change in normative beliefs with the spreading of self-regulation and self-determination in different European countries

Influence of body composition on physical activity of postmenopausal women

Helena Moreira

H Moreira[1,2,3], *C Abrantes*[1,2,3], *A Oliveira*[1], *R Gabriel*[1,2,4], *A Faria*[5,6]
[1]University of Trás-os-Montes e Alto Douro, Vila Real, Portugal,
[2]Department of Sport Sciences, Exercise and Health, Portugal
[3]Research Center in Sports Sciences, Health Sciences and Human Development (CIDESD), Portugal
[4]Centre for the Research and Technology of Agro-Environmental and Biological Sciences (CITAB), Portugal
[5]University of Beira Interior, Covilhã, Portugal,
[6]Department of Sport Sciences, Portugal
Contact: hmoreira@utad.pt

The analysis of the relation of body composition with physical activity (PA) in postmenopausal women (PW) gives important tips for the development of exercise programs focused on their needs. The purpose of the study was to examine the association of various components of body mass with the levels of PA in this population, by observing the influence of menopausal characteristics.

The observational descriptive study included 25 PW (62.21 ± 4.89 years) with natural menopause. The body composition was evaluated by bioimpedance InBody 720 and by a Sahara bone sonometer. The skeletal muscle mass index (SMI) was estimated and PA levels were measured using the GT1M ActiGraph accelerometer. Association between variables was tested by the Spearman correlation coefficient and stepwise regression models were developed.

The sample revealed the presence of elevated levels of fat mass (FM, 37.96 ± 5.99%) and visceral fat area (VFA, 133.03 ± 25.08 cm2). The average values of skeletal muscle mass and calcaneal bone mineral density (BMD) were, respectively, 21.91 kg and 0.59 g/cm2. The total PA ranged between 589.25 and 2755.75 minutes/week. There were no significant associations of age, time since menopause, VFA and calcaneal BMD with levels of PA. Regardless of hormone therapy and FM, women with better muscle condition display ($p \leq 0.05$) higher levels of total PA (Beta = 0.421) and less time in sedentary activity. The percentage of fat mass proved to be an independent predictor ($p \leq 0.05$) of moderate-vigorous activity time (Beta = −0.524, $R2 \times 100 = 24.3\%$) and the number of steps executed per day (Beta = −0.464).

The results suggest that the excess of fat mass in postmenopause restricts physical activity in women, compromising the execution of minimum levels of moderate-vigorous intensity required for health. The improvement of muscle condition plays an important role in the reduction of time in sedentary activity.

Key message

- The presence of adequate levels of fat mass and muscle in postmenopausal women is associated to better levels of physical activity

Results from the pilot project „healthy district"– roundtables for the regional health promotion

Holger Hassel

T Fleuren, A Bütterich, H Hassel
Coburg University of Applied Sciences and Arts, Institute of Applied Health Sciences, Coburg, Germany
Contact: iag@hs-coburg.de

Introduction

Eight health authorities had participated on the pilot project of the Bavarian Ministry of Health and Health Care. In an integrated approach the topics: health conferences, health reports, networking, project development and the initiation of roundtables were considered. The aim was to initiate a qualitative health promotion in the communities.

Method

The quality development and control of the pilot project were achieved in three ways:

1. Continuous advice and qualification of the health authorities (topics et al networking, Self-evaluation methods Goal Attainment Scaling (GAS) and Peer-evaluation).
2. Steering meetings: Coordination of the major evolution and the project process with the 8 health authorities.
3. Major evolution: Surveys using questionnaires on the four measurement dates (t0-t3). The topics of the integrated approach were in the course of this survey operationalized to make the quality and ways of working visible.

Results

In two years of project duration, 24 communities could realize municipal health promotion. Mainly roundtables for the regional health promotion were installed. Selected health projects were at least once evaluated with the GAS and the Peer-Evaluation. The degree of participation of the target groups have raised in the realization of health projects. All of the eight health authorities created health reports at the end of the project duration. In three of them municipal health conferences took place.

Discussion

Because of the continuous support and qualification the quality development could be promoted systematically. The evaluation methods (GAS and Peer-Evaluation) were trained in the course of the project meetings. At the same time it showed that the practical suitability is restricted because of the high methodological effort. The steering meetings have helped to coordinate the project contents and to structure the pilot project. The joint vote of the evaluation categories increased the acceptance for their implementation.

Key messages

- In two years of project duration, 24 communities could realize municipal health promotion
- Because of the continuous support and qualification the quality development could be promoted systematically

'A plague of our times': Addressing health-related lifestyle choices in England

Matthew Callender

M Callender, J Sixsmith
Institute of Health and Wellbeing, University of Northampton, Northampton, UK
Contact: matthew.callender@northampton.ac.uk

Background

Recently, responsibility for public health commissioning in England was placed within local authorities and councillors in local authorities are now seen as key figures; "tak[ing] on leadership for public health at the local level" (Dept. of Health, 2012:6–7). It is critical that councillors, in their new leadership roles within public health, are consulted to establish their local health priorities. This study aimed to engage with councillors to identify health priorities, relating to the needs of local populations. This research reveals councillors perspectives on the health care needs of their local populations.

Methods

A mixed-methods approach was adopted involving a survey and semi-structured interviews. 105 councillors engaged with the survey, representing 33% of councillors in the study site, and 15 councillors were interviewed. Descriptive statistics were created from numerical data and qualitative data was subjected to thematic analysis.

Results

The analysis highlighted health priorities alongside the need to address the 'plague of our times'; the prevalent culture of complacency and risk-taking among local populations to improve health outcomes as defined in the Public Health Outcomes Framework. Councillors felt that addressing poor lifestyle choices and behaviours should focus on education. They also felt that the ultimate responsibility for health outcomes lay with individuals and their families, although there was some recognition that a range of organisations and communities also bear responsibility for the ways individuals make unhealthy lifestyle choices.

Conclusions

Addressing the health-related lifestyle choices of the local population was viewed a priority of participants and that we need collectively change in health-related choices and take actions to address the various 'plagues of our time'. Suggestions, for culture change focused on the lifestyle choices of children and parents with little thought beyond the power of education.

Key messages

- Addressing a culture of complacency and acceptance of risk-taking was perceived as both a key challenge for public health in England and a shared responsibility across society

- Data suggest that despite people having adequate knowledge and evidence showing poorer health outcomes with certain behavioural choices; individuals continue to live precarious lifestyles

Health promotion - future challenges in occupational heath services. A mixed method approach

Marie Lydell

M Lydell[1], C Hildingh[1], A Söderbom[2], K Ziegert[1]
School of health and welfare, Halmstad University, Halmstad, Sweden
School of business, engineering and science, Halmstad University, Halmstad, Sweden
Contact: marie.lydell@hh.se

Background

Occupational health services (OHS) are often working from a pathogenic perspective, seeing the customer as a patient. To meet the future challenges in a more holistic way there is a need of changing perspective. The occupational health services must promote health and prevent the problems before they appear.

The study will answer the following questions: What experiences do the employees at an OHS have regarding their daily work? What experiences do the employers have regarding the OHS? What challenges do the employers see for the future and how can OHS be supportive?

Methods

This study included a three-stage process; the first stage included qualitative data from diaries, collected during one and a half year, interviews with occupational health professionals ($n = 12$) in an occupational health service center as well as focus groups interviews with managers of the customer companies affiliated to the occupational health service center. The second stage was a quantitative part with a questionnaire to managers of the customer companies ($n = 116$) and the third stage will be a review of existing literature in occupational health.

Results

Findings from stage 1, 2 and 3 are presented in three categories:

Balancing complex situations was e.g. about the difficulty between loyalty to the client and the company's profits and also that major changes in the workplace are leading to difficulties for many employees. Working with a proactive approach was e.g. about new approaches that are needed in the OHS. Collaborate internal and external showed e.g that more collaboration between companies, OHS and external actors was of importance.

Conclusions

a. Change and apply new perspectives in occupational health services.

b. There is clearly a need for research in OHS using a comprehensive approach to health promotion.

c. There must be interactions between the occupational health services and the management of the customer companies for designing new proactive health promotion interventions.

Key messages

- It is significant for occupational health centers taking into account the importance of balancing complex situations, having a proactive approach and collaborating in working life
- To change perspective and approaches in occupational health centers are of importance in order to meet future challenges in working life

Cervical cancer screening for high-risk women? Data from a multicenter study in Lombardy – Italy

Giovanna Orlando

G Orlando[1], E Tanzi[2], M Fasolo[1], S Bianchi[2], F Mazza[1], E Frati[2], A Crippa[1], M Martinelli[2], G Rizzardini[3], M Gramegna[4]
[1] STD Unit, Department of Infectious Diseases, L Sacco University Hospital, Milan, Italy,
[2] Department of Biomedical Sciences for Health, University of Milan, Milan, Italy,
[3] Department of Infectious Diseases, L Sacco University Hospital, Milan,Italy,
[4] Unità Organizzativa Governo della prevenzione e tutela sanitaria, Direzione Generale Sanità, Regione Lombardia, Milan, Italy
Contact: orlando.giovanna@hsacco.it

Background

High-risk human papillomavirus (hrHPV) testing has a higher sensitivity but a lower specificity than cytology for the screening of cervical (pre)-cancerous lesions. To limit colposcopy referral, HPV testing is recommended for women >30 years, but no consensus on the triage strategy for hrHPV + ve women has yet been reached and few data are available for women at high risk of disease progression.

Methods

The VALHIDATE multicenter cohort study was designed to evaluate the epidemiology and natural history of HPV infection and to define the best prevention options for women at high risk of infection and/or disease.

A basal co-testing (Pap and HPV test followed by HPV genotyping) was offered to HIV + ve women (HW), uninsured migrant women (MW), and to a control group (CW) of resident women. The prevalence and age distribution of hrHPV for each group were evaluated.

A simulation of colposcopy referral needed after primary PAP or hrHPV screening in each high-risk group was calculated for women older or younger than 30 years and compared to the control population.

Results

Data from 823 HW and 521 MW were compared to 1422 CW. The age adjusted prevalence of hrHPV was 23.8% (20.9–26.7), 19.2% (15.8–22.6) in HW and MW respectively compared to 10.3% (8.8–11.9) in CW (χ^2 $p < 0.001$). The prevalence of HPV-16/18 was 6.0% (4.4–7.8) and 6.3% (4.4–8.8) in the testing cohorts compared to 3.4% (2.5–4.5) in the control group (χ^2 p 0.004).

The colposcopy referral rate for a positive hrHPV was higher than for a positive Pap test independently from age. HPV-16/18 driven colposcopy referral allows a −8.6% and −6.1% referral rate for HW <30 y or >30 y and −2.3% and −2.2% referral rate for MW <30 y or >30 y respectively.

Conclusions

HIV + ve and uninsured migrant women have a higher rate of hrHPV and HPV-16/18 infection than control women. Baseline HPV-16/18 genotyping and triaging of hrHPV + ve women with cytology could be acceptable for cervical cancer screening in high-risk women.

Key messages

- HrHPV testing adds new opportunity for the screening of cervical cancer but needs further evaluation to identify the best practice and implementation in the general population and in high risk women
- Screening strategy for HIV + ve and unassured migrant women must take into account the specific epidemiology and natural history of hrHPV infection in these high risk women

Evaluation of an intervention aimed at supporting new parents: study protocol and enrolment results

Paolo Giorgi Rossi

S Broccoli[1,2], L Bonvicini[1,2], C Panza[3], A Volta[4], E Bellochio[5], L Tamagnini[5], C Sacchettini[1,2], P Giorgi Rossi[1,2]
[1] Epidemiology Unit, Azienda Unità Sanitaria Locale, Reggio Emilia, Italy
[2] IRCCS Arcispedale Santa Maria Nuova, Reggio Emilia, Italy
[3] Primary Care Pediatrician, Azienda Unità Sanitaria Locale, Reggio Emilia, Italy
[4] Primary Care Pediatrician and Neonatologist, Azienda Unità Sanitaria Locale, Reggio Emilia, Italy
[5] Primary Health Care, Azienda Unità Sanitaria Locale, Reggio Emilia, Italy
Contact: serena.broccoli@ausl.re.it

Background

The importance of promoting parenting skills is worldwide recognized and, in Italy, different projects are implemented in order to develop these competences. The impact of these experiences is rarely evaluated.

The aim of this study is to evaluate the improvement in self-efficacy parenting produced by an intervention which consists in sending to every new parents, during the first year of life of their son, eight newsletters with advices and recommendations on child care and development (project ‘‘Baby Newsletter’’).

Methods

The study is a not-randomized controlled trial to evaluate a community intervention to promote self-efficacy parenting. The treated group will be composed by all newborns resident in S.Ilario d’Enza (105 in 2013) where the Baby Newsletter is implemented. Newborns resident in the Health District of Montecchio and born in Montecchio Hospital in the same period are the control group (278 in 2013). The enrolment started the first of September 2014. Preterm or hospitalized children are excluded.

Self-efficacy parenting is evaluated through the TOPSE (Tool to measure Parenting Self-Efficacy) questionnaire administered at baseline, in Montecchio Birth Unit or at the paediatric clinics, and at the vaccination appointments after 5 and 12 months.

Results

During the first seven months the study has been proposed to the family of 110 eligible children and 74% of these families has agreed to participate. 33 children are in the treatment group (54% male) while 49 are in the control group (45% male). During the first two months of follow-up only 10 (38%) on 26 families has returned the TOPSE questionnaires.

Conclusions

Many families agreed to participate to the study. The enrolment will be longer than expected since during high-activity days or during festivity it is suspended. Since few questionnaires have been collected during the five-month follow-up we are now implementing a new web-based form of the TOPSE questionnaire in order to make easier filing it.

Key messages

- Community and interventions aimed at promoting parenting skills rarely are object of a rigorous efficacy evaluation
- We report recruitment results of a not-randomised controlled trial to evaluate the effectiveness of an intervention to promote parenting skills and child centered literacy orientation

Regular physical activity of older people in Kosovo: a population-based survey

Naim Jerliu

N Jerliu, P Krasniqi, M Berisha, N Ramadani
National Institute of Public Health of Kosovo, Prishtina, Kosovo;
Faculty of Medicine, University of Prishtina, Prishtina, Kosovo
Contact: jerliu@gmail.com

Background

Physical activity in older people is critically important in the prevention of disease, maintenance of independence and improvement of quality of life. Our aim was to assess the regular physical activities of older people aged 65 years or older in Kosovo - a country in Western Balkans going through a multiple socioeconomic and political transition.

Methods

A nationwide population-based survey using a questionnaire focused on the specific aspects dealing with the lifestyle, socio-demographic and socioeconomic aspects of older people was conducted in Kosovo in January-March 2011. This included an age-sex and-residence stratified random sample of 1,890 individuals (83.5% response) aged 65 years and over.

Results

Around 14.3% of the elderly reported to practice regular physical activities, with more males than females engaging in such activities (20.2% vs. 9.2%, respectively). The difference was statistically significant ($P < 0.001$). The proportions of those taking regular exercise declined with age: 18.0% of those aged 65–74 years were taking regular exercise, against only 5.6% of those aged 85 years or older, and the difference was significant ($P < 0.001$). More respondents from urban areas reported to engage in regular exercises compare to their rural counterparts, with the difference being statistically significant ($P < 0.001$). Significantly ($P < 0.001$) more married individuals were engaging in regular exercises compared to unmarried persons with the respective prevalence of regularly exercising being 18.1% and 9.8%.

Conclusions

These results from the survey with older people in Kosovo indicate a very low level of regular physical activities, especially among older women. Development of specific public health strategies and programs on promoting regular physical activities which could extend the health and quality of life of people into old age is needed.

Key message

- Development of specific public health strategies and programs on promoting regular physical activities which could extend the health and quality of life of people into old age is needed

Water intake for preventing stroke in healthy Japanese: KOBE Study

Tomofumi Nishikawa

T Nishikawa[1,2], N Miyamatsu[1,3], A Higashiyama[1,4], Y Nishida[1], Y Kubota[1,5], T Hirata[1,7], D Sugiyama[1,6], K Kuwabara[1,6], Y Miyamoto[1,4], T Okamura[1,6]
[1]Foundation for Biomedical Research and Innovation, Hyogo, Japan
[2]Faculty of Health Science, Kyoto Koka Women’s University, Kyoto, Japan
[3]Department of Clinical Nursing, Shiga University of Medical Science, Shiga, Japan
[4]Department of Preventive Medicine and Epidemiologic Informatics, National Cerebral and Cardiovascular Center, Osaka, Japan
[5]Department of Environmental and Preventive Medicine, Hyogo College of Medicine, Hyogo, Japan
[6]Department of Preventive Medicine and Public Health, School of Medicine, Keio University, Tokyo, Japan
[7]Center for Supercentenarian Research, Keio University School of Medicine, Tokyo, Japan
Contact: dogsbow@gmail. com

Background and Aim

Taking plenty water is frequently recommended for prevention of cerebral stroke. We investigated whether having awareness of taking plenty water was associating with an increase in non-alcohol beverage (NAB) intake.

Methods

We conducted a cross-sectional study using database from Kobe Orthopedic and Biomedical Epidemiologic (KOBE) Study. Among 1138 healthy Japanese participants in the baseline survey, 1014 (female 707 and male 307) participants replied for the follow-up survey including questions about NAB intake. Daily NAB intake was estimated according to food frequency questionnaire. Alcohol beverage and water in the meal or soup were excluded from the counting. The association between the volume of NAB intake and having awareness of taking plenty water consciously was evaluated. The association between the volume of NAB intake and the difference in awareness of taking plenty water was evaluated by sex- and age-adjusted ANOVA. We also estimated the association between the volume of NAB intake and the reasons for taking plenty water consciously; selecting from ‘‘prevention for cerebral stroke’’, ‘‘prevention for heatstroke’’, and ‘‘others’’.

Results

The mean volume of NAB intake was 1719.7 ml/day. Females took more NAB than males (1767.7 ml/day and 1609.3 ml/day, respectively, $p < 0.01$ for t-test). There were 662 subjects replying they consciously taking plenty water (female 472, male 190). Having awareness of taking plenty water consciously was not associated with sex difference. The subjects replying they take plenty water consciously took more NAB than the rest did (1844.3 ± 25.8 ml/day and 1485.4 ± 35.6 ml/day, respectively, mean ± SE, $p < 0.01$ for ANOVA). The difference of the reasons for taking plenty water consciously was not associated with the volume of the daily NAB intake.

Conclusion

Having awareness of taking plenty water, regardless of the reasons, was associated with the increase in the volume of taking NAB in a Japanese population.

Key message

- needs of public education about water intake for stroke prevention

Promoting physical activity: An inter-sectorial activity between health and spatial planning

Danilo Cereda

D Cereda[1]*, L Coppola, R Zuffada*[2]*, AJ Bastiampillai*[3]*, E Gabrielli*[3]*, E Ripamonti*[4]*, M Gramegna, M Pontello*[3]
[1]General Directorate of Health, Lombardy Region, Milan, Italy
[2]Lombardia Informatica s.p.a, Milan, Italy
[3]Public Health, Department of Biomedical Health Sciences, University
[4]University of Milano-Bicocca, Milan, Italy
Contact: danilo_cereda@regione.lombardia.it

Issue/problem

Lifestyle plays a key role in people's health and is strongly in influenced by physical, organisational, social and cultural contexts, at both the individual and community levels.

Problem

The project originated through the joint interest of the general directorates for health and spatial planning of the Lombardy Region in exploring possible synergies and inter-sectorial approaches between health and spatial planning policies. (within transnational SPHERA project: enhancing territorial governance in Alpine space).

Spatial and urban planning can positively guide people toward effectively promoting health as an inter-sectorial process oriented to- ward empowering the community in terms of a healthy lifestyle and supportive environments for health.

Results

In the northern Italian region of Lombardy, activities follow the criteria of effectiveness, integration, a multi-sector approach and sustainability, and are developed in network programs and/or with the involvement of regional health authorities, local authorities, associations and community stakeholders. The main activities in 2013 included the Health Pro- moting Schools Network (SPS), the Workplace Health Promotion Network (WHP, 145 companies engaged), walking groups (involving 18,891 participants, of whom 11,488 were under sixty-five) and information campaigns (Lifestyles Conducive to Health: A Good Region For ... and Stairs for Health).

Lessons

SPS, WHP, the walking groups and Stairs for Health programs have positive effects on both health and psychosocial development, with an indirect impact on the families and volunteers involved as well. The alliance with local governments, companies and schools plays a pivotal role in practical management.

Key messages

- Lombardy Region is undertaking health-promotion paths according to which health benefits can be attained at an affordable cost and within resource constraints if effective strategies are adopted
- School for Health programs, Workingplace Health programs, the walking groups and Stairs for Health programs have positive effects on both health and psychosocial development

Radio catalytic ionization: an innovative approach for indoors disinfection

Gabriele Messina

G Messina[1,2]*, A Verzuri*[2]*, D Rosadini*[2]*, S Di Maio*[1]*, S Burgassi*[1]
[1]Department of Molecular and Developmental Medicine, University of Siena, Italy
[2]Post Graduate School of Public Health, University of Siena, Italy
Contact: gabriele.messina@unisi.it

Background

Is infection of indoors is a crucial problem, particularly in healthcare settings for preventing healthcare-associated infections. Recent methods, based on the Radio Catalytic Ionization (RCI), emerged as a possible approach to disinfect the environments. The aim is to test the efficacy of a RCI device to control microbial contamination on a confined setting.

Methods

A pre/post design study was conducted from January to April 2015 in a laboratory of the University of Siena, Italy. RCI system transforms air moisture in Reactive Oxygen Species, including H2O2, trough a photo-catalytic process, mediated by an ultraviolet light which irradiates a titanium dioxide surface. The device was tested with three levels of humidity: 35–40%, 50–60% and >60%. Efficacy on disinfection was assessed counting the number of Colony Forming Unit (CFU) on two shelves trough contact plates incubated at 36°C and read at 48 h from sampling. Comparisons were performed during the activity/inactivity of the device at different levels of humidity. Moreover, it was studied the effect of the RCI device in time. Linear regression, ANOVA and Wilcoxon paired sample tests were performed for evaluating possible differences.

Results

When the humidity was around 35–40% the device tended to contrast the contamination level (below 30 CFU). Similar results were achieved when the humidity level was set at 50–60%; when the level of humidity was higher (>60%), it was noted a significant decreasing trend of microbial contamination that ended up with 10–5 CFU. The reduction of CFU occurred after a latency of 2–3 days of continue exposition (linear regression showed a coefficient β -3.70 with $p < 0.0001$).

Conclusion

Reduction of the number of CFU seems to correlate with the percentage of moisture of the air, particularly when the values were above 60%; low levels of humidity seem to control the microbial contamination. Confined environments with controlled humidity level could benefit of RCI system.

Key messages

- The importance of indoors disinfection is a crucial problem, particularly in healthcare settings for preventing healthcare-associated infections
- Disinfection of indoors settings can benefit of Radio Catalytic Ionization system when appropriate environmental parameters, such as humidity, are under control

A new Health Literacy Scale: Turkish Health Literacy Scale and its psychometric properties

Pinar Okyay

P Okyay[1]*, F Abacigil*[1]*, H Harlak*[2]*, ED Evci Kiraz*[1]*, K Karakaya*[3]*, H Tuzun*[3]*, E Baran Deniz*[3]*, G Saruhan*[1]*, S Gursoy Turan*[1]*, H Ömer Tontuş*[3]*, E Beser*[1]
[1]Public Health Department, Adnan Menderes University Medical Faculty, Aydın, Turkey
[2]Psychology, Adnan Menderes University Faculty of Arts and Sciences, Aydın, Turkey
[3]General Directorate of Health Promotion, Ministry of Health, Ankara, Turkey
Contact: pinarokyay@hotmail.com

Health literacy (HL) is an important public health issue. It concerns the knowledge and competences of persons to meet the complex demands of health in modern society. It is also a key dimension of Health 2020, the European health policy framework adopted by Member States in 2012. The instrument labeled HLS-EU-Q is derived from the conceptual model and definition developed by the HLS-EU consortium. This study aims to develop a new Health Literacy Scale, Turkish Health Literacy Scale (THLS) and to evaluate its psychometric properties. THLS is a 32-item scale, adapted from the conceptual model and definition developed by the HLS-EU consortium. However, THLS takes into account of two relevant areas instead of three in HLS-EU. The two areas are 1) Health care, and 2) Disease prevention and health promotion. Four information processing stages (access, understand, appraise, apply) related to health relevant decision-making and tasks are also protected in the current scale. Psychometric properties were used to evaluate the reliability and validity of the instrument. The instrument demonstrated good internal consistency reliability with a Cronbach's alpha of 0.927, where 0,880 and 0,863 for "health care" and "disease prevention and health promotion" areas, respectively. As for validity, six factors were extracted from 32 items, which together explained 54.8% of the instrument's variance basing on confirmatory factor analysis. All items gave a factor load over 0,32 at the first factor. THLS has good reliability and validity, and it could be used to assess the overall health literacy. As a conclusion, due to the characteristics of the health care system in Turkey and an inadequate dissociation between applications of disease prevention and health promotion, a revision of the conceptual framework was needed. As a result of the revision, THLS became culture adaptive and would have an important function for the development efforts of the health literacy in Turkey. Additionally, easy application makes it an ideal tool for use in Turkey.

Key messages

- THLS has good reliability and validity, and it could be used to assess the overall health literacy
- THLS is culture adaptive, easy to apply and an ideal tool for use in the Turkey

8.W.I. Poster walk: Infectious disease prevention & elderly

Varicella vaccination might result in inequality in health benefits between generations

Anna Lugner

A van Lier[1], *A Lugnér*[1], *W Opstelten*[2], *P Jochemsen*[1], *J Wallinga*[1], *F Schellevis*[3,4], *E Sanders*[5,1], *H de Melker*[1], *M van Boven*[1]
[1]Centre for Infectious Disease Control, National Institute for Public Health and the Environment, Bilthoven, The Netherlands),
[2]Julius Center for Health Sciences and Primary Care, University Medical Center Utrecht, The Netherlands)
[3]Netherlands Institute for Health Services Research, Utrecht, The Netherlands
[4]Department of General Practice and Elderly Care Medicine, VU University Medical Center, Amsterdam, The Netherlands
[5]Department of Paediatric Immunology and Infectious Diseases, University Medical Center Utrecht, The Netherlands
Contact: anna.lugner@rivm.nl

Background

After primary varicella-zoster virus (VZV) infection, the virus persists in latency. Subsequent reactivation results in herpes zoster (HZ). It has been hypothesized that exogenous boosting by VZV reduces the probability of VZV-reactivation. Therefore, universal varicella vaccination may increase HZ incidence due to reduced VZV circulation in the population. To inform decision-making, we conducted cost-effectiveness analyses of varicella vaccination including effects on HZ.

Methods

Statistical analyses were based on a dynamic transmission model, using Dutch VZV seroprevalence and HZ incidence data. In a scenario analysis, we considered four vaccination coverages of a two-dose vaccination program (12 months and 4 years of age). The scenarios differed by whether or not including exogenous boosting effects on HZ, and presence or absence of vaccine VZV reactivation.

Results

All models showed a decrease in varicella after introduction of vaccination. Without exogenous boosting, vaccination (95% coverage) is expected to be cost-effective or even cost-saving. In contrast, in models with boosting, vaccination (95% coverage) is either not cost-effective within 180 years (with vaccine VZV reactivation) or cost-effective only on the very long term (>130 years, without vaccine VZV reactivation), because of increased HZ. Furthermore, disadvantages for unvaccinated birth cohorts out-weigh health benefits for vaccinated cohorts.

Conclusions

Cost-effectiveness of varicella vaccination depends strongly on its impact on HZ, and the time perspective. Our findings reveal ethical considerations as varicella vaccination might result in inequality in health benefits between generations: birth cohorts born just before introduction of vaccination might pay the price for health gain among vaccinated cohorts.

Key messages

- Cost-effectiveness of varicella vaccination depends strongly on its impact on HZ
- Varicella vaccination might result in inequality in health benefits between generations

Should new antiviral treatments be considered in elderly Chronic Hepatitis C patients?

Paolo Angelo Cortesi

PA Cortesi[1], *A Ciaccio*[2], *G Bellelli*[3], *M Rota*[4], *M Rota*[2], *G Cesana*[1], *LG Mantovani*[1], *G Annoni*[3], *M Strazzabosco*[2,5]
[1]Research Centre on Public Health (CESP), University of Milano-Bicocca, Monza, Italy;
[2]Department of Surgery and Translational Medicine University of Milano-Bicocca, Monza, Italy;
[3]Department of Health Sciences - Geriatric Medicine, University of Milano-Bicocca, Monza, Italy,
[4]Department of Health Sciences, Centre of Biostatistics for Clinical Epidemiology, University of Milan-Bicocca, Monza, Italy,
[5]Liver Center & Section of Digestive Diseases, Department of Internal Medicine, Yale University School of Medicine, New Haven, CT, United States
Contact: p.cortesi@campus.unimib.it

Background

A relevant proportion of patients affected by Chronic Hepatitis C (CHC) is older than 65 years. New antiviral treatments provide for the first time the possibility to treat and cure these patients. However, some clinical aspects proper of elderly, such as frailty, may affect general, non liver-related outcomes, reducing the clinical benefit of virological clearance. We assessed the cost-effectiveness of new antivirals taking into account the severity of liver disease, the patients' age and the geriatric (frailty) status.

Methods

A Markov model of CHC natural history was built. The study focuses on CHC patients older than 65 years, stratified according to liver fibrosis (METAVIR F3 and F4), age (65 to 85 years old) and frailty phenotype defined by Fried's (not-frail, pre-frail and frail) for a total of 30 cohorts simulated. Treatment with sofosbuvir plus simeprevir (SOF/SMV) combination versus no treatment was assessed for each cohort population. Results are presented as incremental cost-effectiveness ratios (ICERs) per QALY gained using a lifetime time horizon and the Health System perspective. A sensitivity analysis was performed to assess the robustness of results.

Results

At each fibrosis score, ICER increased with age and frailty index. In F3 cohorts ICER was below €37,000/QALY up to age 75 in frail patients, up to age 78 in pre-frail patients, up to age 82 in not-frail patients. In F4 cohorts ICER was below €37,000/QALY up to age 78 in frail patients, up to age 82 in pre-frail patients, up to age 85 in not-frail patients. The sensitivity analyses confirmed the significant impact of frailty on the cost-effectiveness of SOF/SMV.

Conclusions

The cost-effectiveness of SOF/SMV in elderly CHC patients is affected by the severity of liver disease, the patients' age and the frailty phenotype. A careful assessment of the patient geriatric status is mandatory to better allocate the resources available to treat the elderly CHC patients.

Key messages

- Anti-HCV treatment should be considered in elderly patients
- Severity of liver disease, patients' age and frailty must be considered together to better allocate the resources for HCV treatment

The screening of frailty provides indication for prevention: the Italian Frailty Screening study

Francesco Gilardi

G Liotta[1]*, MC Marazzi*[2]*, F Gilardi*[3]*, P Scarcella*[3]*, L Palombi*[3]
[1]Department of Biomedicine and Prevention University of Rome Tor Vergata, Italy
[2]L.U.M.S.A. University, Rome, Italy
[3]Department of Biomedicine and Prevention University of Rome Tor Vergata, Italy
Contact: francesco.gilardi@uniroma2.it

Frailty is considered a determinant of elderly decline. However the potential negative consequences of frailty on individual health can be prevented by public health prevention program. The aim of this study is to describe the characteristics of frailty in an elderly sample in order to plan an effective community prevention program.

A randomized sample of over-64 Lazio region residents, living at home, has been contacted through their General Practitioner. A multidimensional questionnaire (Geriatric Functional Evaluation) has been administered to 1,333 individuals (723 females, 54,2% and 610 males, 45,8%, mean age 76.3 ± 7.12) by trained personnel. The questionnaire classified the patients as very frail, frail or robust on the basis of the risk of admission to residential LTC or death in the five years following the assessment. Statistical analysis included T-test, X-square, Pearson correlation, univariate and multivariate analysis.

Very frail and frail individuals stood at 7.6% and 14% of the interviewed sample respectively. Multivariate analysis showed that age over 85 years, presence of neuropathies, low socio-economic status, disabilities and living alone are associated to frailty. The study identified a low number of hard-to-reach individuals who are very frail and live alone (1.1%). Among frail individuals the percentage of isolated and/or poor subjects is about 20% (2.8% of the total sample). Neurologic diseases affect about one/third and two /third of frail and very frail subjects respectively. Disabilities are strongly correlated with neuropathies (Pearson Corr: 0.46; $p < 0.001$).

Frailty screening is able to identify individual at risk of severe health outcomes. The care of neuropathies joined with physiotherapy is a core intervention in order to lowering the physical decline of frail elderly and allowing them to remain in the community as well as social care addressing the isolated and poor individuals.

Key messages

- The study showed that age over 85 years, presence of neuropathies, low socio-economic status, disabilities and living alone are associated to frailty
- The study identified a low number of hard-to-reach individuals who are very frail and live alone (1.1%). Among frail individuals the percentage of isolated and/or poor subjects is about 20%

Monitoring the care process of disable elderly, reports for doing public governance: do they work?

Modesta Visca

M Visca[1]*, F Profili*[2]*, G Damiani*[3]*, P Francesconi*[1]*, L Palestini*[4]*, V Vivoli*[4]*, B Federico*[5]*, M Bellentani*[1]*, on behalf of group ''LUNA''*[6]*, F Bevere*[1]
[1]National Agency for Healthcare regional services- Agenas, Rome, Italy
[2]Toscana Region Healthcare Agency -Ars Toscana, Florence Italy
[3]Department of Public Health, Università Cattolica del Sacro Cuore, Rome, Italy
[4]Regional Agency for social and healthcare services – ARSS, Emilia Romagna Region
[5]Department of Human Sciences, Society and Health University of Cassino and Southern Lazio
[6]LUNA Group (LUngo assistenza agli anziani Non Autosufficienti): Brambilla A, Cacciapuoti I, De Gennaro G, Maestroni AM, Fortuna P, Matteazzi A, Piazzolla V, Razzanelli M
Contact: modestavisca@libero.it

Background

There has been an increasing interest and necessity to measure Long term care - LTC services for dependent elderly. The LUNA study conducted by the National Agency for regional healthcare services aimed to contribute to the development and implementation of a governance tool to monitor and improve LTC services.

Methods

A set of indicators for evaluating care delivered to disabled elderly in local areas of five Italian regions – Lombardy, Veneto, Tuscany, Apulia, Emilia Romagna was defined and a report was developed as governance tool.

All records relative to residents in Brescia Local Health Unit (LHU), Vicenza LHU, Tuscany, Taranto LHU, Bologna LHU aged ≥65years, assisted at least one day between Jan, 1 2012 and June, 30 2013 were extracted from national home and residential care databases. These records were linked with hospital discharges and emergency room access databases. The outcome measures were ratios, arithmetic means, incidence rates, Odds Ratio (CI 95%) adjusted for the main confounders. Independent audit and coordinated focus groups were performed across the LHU involved to test the utility of the report as governance tool.

Results

33 indicators on access, multidimensional evaluation, tempestivity, continuity, efficacy were calculated. An example of appropriateness regards the Emergency Access rate with white or green code of elderly in home care. The rates were 28% person-years at Brescia, 80% person-years at Empoli, 38% at Bologna, 37% at Vicenza and 19% person-years at Taranto.

8 focus groups were performed involving 87 professionals and stakeholders of LTC services. Qualitative concerns reveal that despite the high validity of the set of indicators developed, less technicality and a deeper bottom up approach in the set of indicators design and selection would have been recommended from the health care professionals and governors involved in the implementation of the report as governance tool. The report was appreciated as tool for integration.

Conclusions

Regional differences either in process of care either in the usefulness of the tool were found. Further analyses are needed to improve this innovative quality instrument in order to be easily implemented to do public governance of LTC services and focus also on equity aspects.

Key message

- reports to do public governance of LTC service are needed

Developing a Complex Intervention Program for Informal Caregivers of Stroke Survivors

Theresia Krieger

T Krieger[1]*, J Jungbauer*[1]*, F Feron*[2]*, E Dorant*[2]
[1]Catholic University of Applied Sciences North-Rhine Westphalia, Aachen, Germany

[2]Maastricht University, Maastricht, The Netherlands
Contact: t.krieger@katho-nrw.de

Background

Stroke is a leading cause of long-term disability, affecting the entire family system. Overload and unmet caregiver needs lead to physical and mental overburdening with negative long term health consequences. Stroke caregivers may benefit from professional support. In Germany, no complex prevention programs to support caregivers of stroke survivors have been developed yet. The aim of the study is to build a new preventive support program for stroke caregivers in Germany, using a mixed-method approach.

Methods

Three separate, but interconnected, interpretative and inductive qualitative studies were conducted. Regional stroke units, rehabilitation centres, outpatient services and the home environment of caregivers of stroke survivors were included. Essential components of caregiver support were identified 1) by interviewing experienced stroke caregivers and 2) health professionals working with caregivers, and 3) by participant observation of caregiver - health professional interactions. By using content analysis first the qualitative data were condensed into themes and second themes were arranged into conceptual program building blocks.

Results

The need for a personalized, holistic and multicomponent caregiver support program emerged from all three studies. Fourteen main themes were found, including problem solving, coping, resource activation as well as information brokerage. Informal stroke caregivers will be approached via outreach counselling as early as possible in the acute stroke phase. Focus person support, individual face-to-face communication and client participation in the rehabilitation process are important program components.

Conclusions

The personalized multicomponent support program was designed utilizing a mixed-methods approach. This program will offer maximum flexibility and consist of five conceptual building blocks: content, human resources, personalized approach, timing and setting.

Key message

- Using a mixed methods approach was valuable to develop a complex stroke caregiver intervention program. Important conceptual building blocks were clarified before program implementation

Age-period-cohort effects in alcoholic liver disease mortality in France from 1968 to 2010

Olivier Grimaud

KM Keyes[1], N Le Meur[2], A Hamilton[1], G Rey[3], O Grimaud[2,4]
[1]Columbia University, New York USA
[2]EHESP, Rennes, France
[3]INSERM, CepiDc, Le Kremlin-Bicêtre, France
[4]INSERM, ERES, Paris, France
Contact: kmk2104@columbia.edu

Background

Per capita alcohol consumption in France has historically been among the highest levels in Europe. In more recent history, however, consumption (mostly wine) has substantially decreased as has alcohol-related mortality. The present study characterizes age, period, and cohort (APC) trends in liver disease in France for the past four decades.

Methods

Data were drawn from overall French death certificates records covering the years 1968 to 2010. Liver disease mortality was defined from underlying cause ICD 8, 9, and 10 codes. We estimated age, period, and cohort effects, by sex, using Poisson modeling estimation and Clayton & Shiffler's approach to model identification for APC modeling.

Results

Liver disease mortality exhibited significant age, period and cohort effects. The overall mortality rates were 25/100,000 for men and 9/100,000 for women over the period of data collection, with mortality increasing across age and peaking around age 70. Among males, there was no cohort effect and a clear and significant period effect; the risk of liver cirrhosis mortality in men has been steadily decreasing for all age groups across time. Conversely among women, there was a similar decreasing period effect but a strong and significant cohort effect as well. Specifically, there was a positive cohort effect for cirrhosis mortality for women born before around 1960 with the risk of liver cirrhosis for those cohorts between 4.0 and 5.0 times higher than the risks for those born after 1970, controlling for age and period effect.

Conclusion

Liver disease mortality has been decreasing in France for the past four decades, across all age groups and across men and women. Women born in older cohorts have much higher risks of dying from liver disease compared with women in younger cohorts, controlled for age, which may be a function of different beverage consumption patterns.

Key messages

- Period effects explain much of the decrease in liver disease mortality in France
- Women in older cohorts in France remain at higher risk for liver disease than women in younger cohorts, regardless of the period

Integrated care for dementia – need for new ways in training of health care professionals

Elisabeth Krahulec

E Krahulec[1], M Haas[2], W Habacher[1]
[1]JOANNEUM Research ForschungsgesmbH, HEALTH, Graz/Vienna, Austria
[2]Consult OG, Vienna, Austria
Contact: elisabeth.krahulec@joanneum.at

Background

A key public health challenge in Europe is dementia due to the ageing population. In 2014 an implementation plan for integrated care of people with dementia was carried out for the city of Vienna. Main aspects were amongst others an early diagnosis and a continuous health care.

Objectives

A training concept was developed together with various stakeholders along the care pathway considering existing concepts for training in Germany and Austria. The training was designed to provide medical doctors with knowledge in first signals of dementia to facilitate an early diagnosis and to train them on the relevant existing medical guidelines. Furthermore caregivers are sensitized to dementia and equipped with skills and knowledge in the daily care. Beyond that working interdisciplinary and within the network are parts of the training for all health care professionals.

Results

The result is a training concept consisting of three comprehensive modules (initial basis training, quality circles and network meetings). As qualification and requirements are varying between the different health care professionals, it was decided to organize separate initial basis trainings. However training of all will follow the same four modules (disease pattern of dementia, handling of people with dementia, offered support, working within the network).

Quarterly quality circles and network meetings on a once a year basis are following an interdisciplinary approach. These two training parts should provide the participants with hands on team working experience.

Conclusions

An interdisciplinary training is essential, since many different professions are concerned with care for people suffering from dementia. Basis training is given separately accounting for different needs of the various professions.

Key messages

- Well trained health care professionals are essential to early diagnosis of dementia

- Cooperation between different health care professionals needs an interdisciplinary training approach

Risks and prevention of frailty in social health effects of ageing

Michel Nogues

M Noguès, M , J Touchon, J Bousquet, M Marc, JC Reuzeau
Carsat LR, Montpellier, France
Contact: michel.nogues@carsat-lr.fr

Issue

Frailty increases with age and frequency is a major medical, social and societal problem. It must be detected early on and treated to prevent or delay the loss of independence.Prior to frailty, risk identification can provide a more focused view of the population likely to receive support tailored to the somatic field and the social sphere. Early awareness of these factors allows planned actions to be implemented within the broader realm of social health prevention.

Description

To pursue a policy of proximity focused on the prevention of the effects of ageing, Carsat-LR, social security, has implemented an Observatory on expanded fragile situations. It aims to identify the risk of frailty in order to promote prevention with early actions tailored to the needs of elderly people and identify priority intervention areas. The challenge is to assess frailty risks in 4 major categories: somatic, psychosocial, nutritional and cognitive. The objective is to guide prevention support for elderly people based on risk of frailty The model of prevention (primary, secondary, tertiary) can lead to segmentation, especially when seniors are at risk of frailty. It seems preferable to review the preventive approaches based on the differentiation between the areas affected by frailty: health and disease, social health and socio-economic environment.

Results

Retirees or pre-retirees at risk of frailty receive advice and guidance in the domain of access to rights, but also in the domain of health. On 100 elderly people 50 are supporting in prevention (nutrition, gymnastics, relaxation, sleep, memory, postural), 20 need for home help, 24 are difficulties related to sight or hearing.The device thus established for the risk of frailty clearly demonstrates the importance of locating the preventive approach as far as possible. The effects of ageing involve the implementation of appropriate procedures and a comprehensive approach to subjects in their environment. The approach in terms of risk of frailty tracking and personalized services for prevention is particularly adapted to the situation of elderly people.The experimentation showed the relevance of the tool and its ease of use. It is emphasised that this experiment is part of Sunfrail project recognised by the European Commission and led by the Emilia Romagna region.

Muscle strength, cardiovascular risk and functional capacity in elderly women

Jhon Ramirez-Villada

John-F Ramírez[1], Carlos-E Melo[2], Yenny-P Argüello[1], David Chaparro[1], Jeison-D Salazar[1]
[1]Health Department, Santo Tomás University, Bogotá-Colombia
[2]Faculty of Medicine, Militar Nueva Granada University, Bogotá-Colombia
Contact: jhonramirezvillada@gmail.com

Objective

To assess the association among explosive and grip strength over early cardiovascular risk (CVR) markers and functional capacity in older women.

Methods

Our research was a cross-sectional study that included old women (active women ''AW'', n = 26; sedentary women ''IW'', n = 21) enrolled in a supervised resistance-type exercise training (RTE) from 2014 through 2015. We measured explosive and grip strength after RTE to analyze the association with cardiovascular risk markers (body mass index ''BMI'', waist, hip index ''WHI'', systolic blood pressure ''SBP'', mean arterial pressure ''MAP'') and functional capacity (shuttle run agility test ''SRT'').

Results

There were differences in the explosive strength (AW v's IW = p 0.001) and shuttle run agility test (JG v's CG = p 0.002) with positive changes for AW. But no significant difference was found with grip strength test between AW v's IW. Inverse correlations were found among muscle mass and power SJ ($r = -0.57$; $P = .001$), power CMJ ($r = -0.81$; $P = .001$), power CMJas ($r = -0.83$; $P = .001$), with changes in shuttle run agility test for AW. Similar inverse correlations were found among muscle mass, power CMJ ($r = -0.73$; $P = .001$), power CMJas ($r = -0.76$; $P = .001$) for IW, without changes to shuttle run test for IW. Subjects with lower levels of explosive strength (odds ratio (OR): 4.66 (95% CI 1.098 to 12.561; $P < 0.05$; CMJ-Maximal Flight Time and odds ratio (OR): 3.71 (95% CI 1.341 to 16.23; $P < 0.05$, Maximal High CMJ) had a risk of having higher adiposity levels ($\geq$ 25%).

Conclusion

The results suggest a significant association between explosive strength and functional capacity, but not relations with cardiovascular risk markers. Grip strength test can not be used to establish positive or negative cardiovascular or functional alterations in old women.

Keywords: strength, cardiovascular risk, functional capacity, elderly women.

Tackling the invisible burden of physical inactivity in older people: A UK case study, 2014–2015

Clare Farrance

C Farrance, F Tsofliou, C Clark
Faculty of Health and Social Science, Bournemouth University, UK
Contact: cfarrance@bournemouth.ac.uk

Background

The health, economic and societal burden of noncommunicable diseases (NCDs) (diabetes, cancer, cardiovascular and chronic respiratory diseases) in Europe's aging population cannot be ignored. NCDs contribute to 86% of deaths and 77% of disease burden in the region. Worldwide the four main contributors to NCDs are physical inactivity, unhealthy diets, tobacco use, and harmful alcohol usage.

Without sustained physical activity across the life-course there is a heightened risk of developing chronic disease and disability. Only half of older people who commence an exercise programme continue beyond the first six months. Community based exercise programmes (CBEP) have been shown to be one means of increasing activity levels for older people, leading to positive changes associated with physical activity engagement.

There is limited knowledge as to which factors facilitate adherence to these programmes. This research aims to determine how and why older people ($\geq$65 years) have adhered with a view to influencing a key lifestyle behaviour in preventing NCDs.

Methods

A multiple case study strategy has been employed to study CBEP with successful adherence rates (adherence rates of $\geq$ 50% for $\geq$1 year). The study is framed under the socioecologic model and studies the phenomena of adherence in a multi-faceted way including, observation, focus groups, questionnaires and interviews.

Results

Preliminary results indicate that key themes in aiding adherence relate to physical health gains, influence of the instructor, the supportive, social nature of the groups and practical aspects such as ease of access, cost, timing etc. There is also evidence of hedonic and eudaimonic features of wellbeing in helping sustain adherence.

Conclusions

CBEP appear to make genuine contributions to participant's health and wellbeing. As such, healthcare professionals should consider signposting older adults to these programmes as a means of seeking to reduce the socioeconomic and health burden of NCDs.

Key messages

- Older adults (≥65 years) who attend community based exercise programmes long term report on the role these programmes have in adding to their health and wellbeing
- The profile of community based exercise programmes needs to be raised at a policy level with a view to increasing the number of older adults who engage in these programmes

Leisure Time Physical Activity Level in Turkish Population, Turkey 2012

Kaan Sözmen

G Dinc[1], K Sozmen[2], G Ergor[3], S Sakarya[4], N Yardim[5], B Unal[3]
[1]Celal Bayar University, Faculty of Medicine, Department of Biostatistics, Manisa, Turkey
[2]Katip Çelebi University, Faculty of Medicine, Department of Public Health, Izmir, Turkey
[3]Dokuz Eylul University, Faculty of Medicine, Department of Public Health, Izmir, Turkey
[4]Marmara University, Faculty of Medicine, Department of Public Health, Istanbul, Turkey
[5]T.R. Ministry of Health Turkish Public Health Institution, Ankara, Turkey
Contact: belgin.unal@deu.edu.tr

Physical inactivity is a major independent modifiable risk factor for noncommunicable diseases. There are no national data on the physical activity levels of Turkish population since early 2000s. In this study leisure time physical activity level of Turkish population is evaluated in 2012.

Methods

This study included the data from a nationwide survey that was conducted by Ministry of Health on prevalence and risk factors of chronic diseases in Turkey in 2012. The study group included 18 477 people that were randomly sampled from over 15 years of age family physicians registered population of Turkey (Response rate was 52.1%). Each family physician conducted the survey by face to face interviews using an electronic form with their two patients. Age and gender standardizations were done according to Turkey 2010 population.

Results

Overall, 23,0% of men and 13,3% of women meet the recommended level of physical activity in leisure times (moderate or vigorous physical activity at least five times a week). Multivariate analysis revealed that sex (women), age (75+), education (illiterate or literate), marital status (except for single), occupation (the other occupations except for agriculture), residence (urban), region (Istanbul, West Anatolia, Mediterranean, Eastern central Anatolia, South East Anatolia), were found the associated risk factors with leisure time physical inactivity ($p < 0,05$ for all comparisons). The percentage who intent to increase their physical activity level were 36,7% and 39,5% in men and in women, respectively ($p < 0,001$).

Conclusion

The findings indicate that leisure time physical activity level of Turkish population, especially in women, in urban areas and in population groups with lower education, is quite low. But, a substantial proportion of Turkish population intent to increase physical activity, so physical activity facilities should be increased.

Key messages

- Leisure time physical activity level of Turkish population, especially in women, in urban areas and in population groups with lower education, is quite low
- Substantial proportion of Turkish population intent to increase physical activity, so physical activity facilities should be increased

Association between physical parameters on quality of life in (pre)frail community-dwelling people

Sandra Haider

S Haider[1], E Luger[1], A Kapan[1], C Lackinger[2], KE Schindler[3], TE Dorner[1]
[1]Medical University Vienna, Centre for Public Health, Institute of Social Medicine, Vienna, Austria
[2]SPORTUNION Österreich, Vienna, Austria
[3]Medical University Vienna, Department of Internal Medicine III, Division of Endocrinology & Metabolism, Vienna, Austria
Contact: sandra.a.haider@meduniwien.ac.at

Background

Available studies prove that frailty is associated with a lower quality of life (QoL). The aim of the study was to assess the association between different physical parameter associated with frailty (balance skills and gait speed, muscle strength, muscle mass and daily physical activity) and QoL, in (pre)frail community-dwelling older subjects.

Methods

QoL was assessed with the WHOQOL-BREF (domains: overall QoL, physical health, psychological health, social relationship, environment) and WHOQOL-OLD (domains: sensory abilities, autonomy, past, present, future activities, social participation). Balance skills, gait speed, and 5-timed chair-stand were assessed with the Short Physical Performance Battery (SPPB), handgrip strength with a dynamometer, muscle mass with the bioelectric impedance analysis, and daily physical activity with the Physical Activity Score for Elderly (PASE). Multiple linear regression models adjusted for sex and age were performed to investigate the influence of different parameters on QoL.

Results

Data from 83 study participants [86% women; mean (standard deviation) 83 (8) years] were analyzed. Balance skills (ß = 0.366; $p = 0.001$), handgrip strength (ß = 0.272; $p = 0.017$) and daily physical activity (ß = 0.395; $p = 0.001$) were associated with overall QoL. Balance skills were also associated with QoL in the domains physical health (ß = 0.371; $p = 0.001$), psychological health (ß = 0.236; $p = 0.043$), environment (ß = 0.253 $p = 0.024$), autonomy (ß = 0.276 $p = 0.015$) and social participation (ß = 0.518, $p = <0.001$), whereas muscle mass was not significantly associated with any QoL domain. Gait speed (ß = 0.381; $p = 0.001$) and chair-stand test (ß = 0.282; $p = 0.013$) were associated with the domain social participation.

Conclusion

Balance skills, handgrip strength and daily physical activity are associated with QoL in (pre)frail community-dwelling older people; particularly the dimension social participation is influenced positively.

Key message

- Balance skills, handgrip strength, and daily physical activity, are associated with various domains of quality of life in (pre)frail community-dwelling older subjects

Presence of Legionella in water networks of italian residential buildings

Michele Totaro

M Totaro, E Carnesecchi, P Valentini, A Porretta, B Bruni, G Privitera, B Casini, A Baggiani
Department of Translational Research, New Technologies in Medicine and Surgery, University of Pisa, Pisa, Italy
Contact: micheleto@hotmail.it

Background

In recent years an increase of community acquired cases of legionellosis was observed in Italy. Technical guidelines give indications for prevention and control of Legionella in the hot water network of residential buildings. To assess the potential public health impact of Legionella colonization at a residential level, we investigated the presence of Legionella in hot water in a sample of Italian residential buildings.

Methods

We performed a survey on 81 apartments buildings in the Pisa district. Presence of legionella was assessed according with the parameters set in the Italian Law D.Lgs. 31/2001. For each building two hot water and three cold water samples in different point of the pipework (mains, pressure plant and tap) were obtained.

Results

Legionella was detected in 20% of samples taken in residential buildings, especially in those with central water heating system. In particular, Legionella pneumophila sg 1 was present in 57% of the positive samples, Legionella pneumophila sg 2–14 was present in 14% of the positive samples and Legionella spp. was present in 29% of the positive samples. Cold water resulted free from microbiological hazards except for one sample where fecal coliforms were detected.

Conclusions

Our results show a condition of potential risk for susceptible categories of population and highlight the need for risk assessment and control measures. It is appropriate to adopt specific training for all professionals involved in the management of water networks, such as administrators and plumbers, to ensure the necessary attention to good practices of risk control.

Key messages

- The risk posed of Legionella in water in residential buildings is underestimated
- Good water quality can be obtained increasing best health practices to reduce the risk for susceptible categories

First Italian Experience of Elderly Immunization with Pneumococcal Conjugate Vaccine

Andrea Orsi

F Ansaldi[1,2], A Orsi[1,2], P Durando[1,2], C Alicino[1,2], D De Florentiis[3], C Trucchi[1], C Paganino[1], M Zacconi[1], E Albanese[1], I Barberis[1], V Turello[4], S Schiaffino[5], G Icardi[1,2]

[1]Department of Health Sciences (DiSSal), University of Genoa, Genoa, Italy

[2]I.R.C.C.S. University Hospital San Martino - IST National Institute for Cancer Research, Genoa, Italy

[3]Office of Maritime Health, Air and Border (USMAF), Ministry of Health, Genoa, Italy

[4]Local Health Unit ASL 3 Genovese, Genoa, Italy

[5]Department of Health and Social Services - Prevention, Public Health and Vulnerable Social Groups - Liguria Region, Genoa, Italy

Contact: andrea.orsi@unige.it

Background

Liguria, an Italian administrative region characterized by an unusual picture in Europe of pneumococcal conjugate vaccine (PCV) coverage in pediatric age group, >80% and >90% since 2004 and 2007, respectively, has issued new PCV13 recommendations for free active immunization in at risk adults and elderly in 2013. To assess the impact of this new immunization program, particularly in subjects aged 70–75 years or with risk factors, two different studies have been implemented among elderly dwelling in the metropolitan area of Genoa, the capital city of Liguria Region.

Methods

A descriptive epidemiology of the clinical burden of lower respiratory tract infections (LRTI) in adults $\geq$18 years and a crossover evaluation of the effect of PCV13 introduction in elderly aged $\geq$70 years, in terms of emergency department (ED) accesses for LRTI, obtained by a Syndrome Surveillance System operating from 2007, have been performed.

Results

During pre-PCV period, annual cumulative incidence of ED accesses for LRTI was equal to 7/1000 and 2% in $\geq$65 and $\geq$85 year adults, respectively. In $\geq$65 years adults, more than 70% of subjects identified by the SSS has at least one risk condition, with a peak of 87% in $\geq$80 year cohort.

Preliminary results, based on an observation period of 7,834 and 851 person-years, respectively before and after pneumococcal vaccination (n = 2,544, median age 75 years, 10°–90° percentile 71–78 years), showed a reduction in the incidence of ED accesses for LRTI in the vaccinated population, compared to not vaccinated: the preventive fraction, adjusted for age and seasonality, was estimated to be 19.4%, with a decrease in ED access incidence of 1.15/1,000 person-year.

Conclusions

This population-based approach showed the effectiveness of current Liguria region recommendations for the prevention of pneumococcal disease in adults and high risk groups and the beneficial impact of PCV13 vaccination in adults under ‘‘real world’’ clinical and epidemiological settings.

Key messages

- Liguria, an Italian administrative north-west region has issued new PCV13 recommendations for free active immunization in at risk adults and elderly in 2013
- Preliminary results of the crossover evaluation showed a reduction in the incidence of ED accesses for LRTI in the vaccinated population, compared to not vaccinated

An updated practical guideline for infection prevention in asplenic and hyposplenic adult patients

Maddalena Grazzini

M Grazzini[1], G Niccolai[1], D Paolini[1], O Varone[1], A Bartoloni[2], F Bartalesi[2], MG Santini[3], S Baretti[3], C Bonito[3], MT Mechi[4], F Niccolini[4], L Magistri[4], MB Pulci[4], S Boccalini[1], P Bonanni[1], A Bechini[1]

[1]Department of Health Sciences, University of Florence; Florence, Italy

[2]Department of Experimental and Clinical Medicine, University of Florence, Careggi University Hospital; Florence, Italy. Infectious and Tropical Diseases Unit, Careggi University Hospital; Florence, Italy

[3]Operative Unit of Hygiene and Public Health, Local Health Unit of Florence, Regional Health Service; Florence, Italy

[4]Health Direction, Careggi University Hospital; Florence, Italy

Contact: maddalena.grazzini@hotmail.it

Issue

Asplenic or hyposplenic (AH) individuals are particularly vulnerable to invasive infections caused by encapsulated bacteria and, occasionally, protozoa. Such infections often have a sudden onset and a fulminant course, with high mortality (up to 50%). Infectious diseases (IDs) incidence in AH subjects can be reduced by using preventive measures; nevertheless currently accepted best practice for managing AH patients are not followed.

Problem

A systematic literature review on evidence based preventive measures was performed and an overall of 95 papers were reviewed. Updated recommendations on available vaccines and antibiotic prophylaxis, for the prevention of IDs in adult AH patients, were provided within the schedule and timing for booster doses administration and therapy.

Results

The mainstays of IDs prevention in AH adult subjects include: 1) patient and family education, 2) vaccination, 3) prophylactic antimicrobial therapy in selected people, 4) early empirical antimicrobial therapy for febrile episodes, 5) malaria prophylaxis for travellers in endemic countries, 6) early management of animal bites.

Vaccinations against Pneumococcus, Meningococcus, Haemophilus influenzae type b and Influenza virus are strongly recommended; vaccines should be administered at least 2 weeks pre-operatively in elective cases, and at least 2 weeks post-operatively in emergency cases. Vaccines against measles, mumps, rubella, varicella, diphtheria, tetanus, and pertussis are recommended in AH subjects as in healthy people.

Conclusions

Evidence based prevention sustains the recommendation of prophylactic measure to reduce the risk of infection in AH individuals. A practical approach to the management of AH adult people should be an useful toolkit to improve the spread of the best practices for the prevention of IDs in inpatients and outpatients health care.

Key messages

- Infectious diseases incidence in asplenic and hyposlenic subjects can be reduced by using preventive measures

- An updated practical guideline should be an useful toolkit to improve the spread of best practice for managing asplenic and hyposplenic patients

The wider impact of routine testing for blood borne viruses in prisons

Caroline Rumble

C Rumble[1], D Pevalin[2], E O'Moore[3]
[1]London School of Hygiene and Tropical Medicine, London, UK
[2]University of Essex, Colchester, UK
[3]Health and Justice, Public Health England, UK
Contact: carolinerumble@hotmail.com

Background

People in prison have a higher prevalence of blood-borne viruses (BBVs) than the general community. Routine testing policies in prisons have been implemented in a number of countries. This review considers the impact of such policies on behaviour change, prevalence, wider community and cost-effectiveness. Secondly we identify barriers and ethical considerations to implementing such policies.

Methods

A literature search was conducted using five electronic databases. We included studies relevant to the impact of routine BBV testing in prisons available in English. Cochrane guidelines informed data extraction and assessment of bias.

Results

1961 titles and 335 full text articles were assessed with 44 studies fulfilling eligibility criteria. 91% included HIV testing compared to 18% for HCV and 11% for HBV. Most studies (82%) were conducted in the USA.

Behaviour change: Two studies consider the link between routine testing and behaviour change. Both have limitations and neither show statistically significant change.

Prevalence: Insufficient evidence on the association with prevalence.

Wider community: Five studies report on the contribution of prison HIV diagnoses makes to the community as a whole. The proportion of total HIV diagnoses in the geographical region made in prison ranged from 5% to 43%.

Cost-effectiveness: Insufficient evidence was identified to draw conclusions.

Barriers: Numerous resource issues and procedural barriers were identified.

Ethical considerations: Issues of informed consent and true confidentiality in prison were discussed alongside capacity issues.

Conclusions

Routine BBV testing offers the chance to identify undiagnosed infection earlier and for awareness raising. However, testing in prison needs to consider issues around complex procedures, ethical considerations, and cost-effectiveness. Good quality control studies of routine testing policies and further qualitative work in the prison setting are required.

Key messages

- People in prison have a higher burden of disease and poorer access to healthcare than the general population. Blood-borne virus infection is more prevalent largely due to injecting drug use
- Routine BBV testing in prisons offers an opportunity to reduce wider testing disparities. However, equitable access must be ensured with consideration of ethical issues in this under-served group

Smear-negative, culture positive TB: diagnosis improvement by Xpert MTB/RIF assay

Paola Dal Monte

P Dal Monte[1], G Lombardi[1], V Di Gregori[2], G Martelli[3], M Tadolini[3], MP Landini[1]
[1]Department of Experimental, Diagnostic and Specialty Medicine – S. Orsola-Malpighi General Hospital Microbiology Unit, University of Bologna, Italy;
[2]School of Public Health, University of Bologna, Italy
[3]Department of Experimental, Diagnostic and Specialty Medicine – S. Orsola-Malpighi General Hospital Invectious disease Unit, University of Bologna, Italy;
Contact: paola.dalmonte@unibo.it

Background

The metropolitan area of Bologna, a city in Northern Italy (Emilia Romagna region), is considered a low incidence setting for tuberculosis (TB), but has a high rate of foreign immigration (13.5% official resident immigrants relative to the whole population in 2011). Concerns in diagnosis of active TB regard smear-negative pulmonary (PTB) with extra-pulmonary TB (EPTB) patients. We aimed to assess the performance of the Xpert MTB/RIF system, new assay employing automated nucleic acid amplification to detect Mycobacterium tuberculosis, as well as mutations that confer rifampicin resistance, in diagnosing smear negative TB, in a low incidence setting.

Methods

In this study, we evaluated the Xpert for diagnosis of smear-negative TB. Microbiological diagnosis of TB was performed using acid-fast microscopic examination using Ziehl-Neelsen (ZN) stain, molecular Xpert MTB/RIF (Cepheid, USA); isolation was performed using solid (Lowenstein-Jensen) and liquid media (MGIT 960; Becton Dickinson, USA).

Results

In the course of 2014, 1073 Xpert out of 7500 coltures were performed. All bacteriologically confirmed TB cases ($n = 92$) identified in our Unit in 2014 were included in the study. Of these, 74% were from foreign peolple, 51% were female and mean age was 45 ± 19 years. MTB and HIV co-infection accounted for 3 out of 77 cases (3.4%) tested. In comparison with culture, we found an overall sensitivity of 87.5% and specificity 98.9% for Xpert; sensitivity of Xpert was higher for PTB (92.4%) than for EPTB (77.8%). In contrast sensitivity of microscopy was poor (30.4%), better for PTB (42.4%), worst for EPTB (9.1%). Therefore in comparison with microscopy, Xpert improves both diagnosis for PTB (Δ% PTB = 50%; IC 95% = 32%-63%) and for EPTB (Δ% EPTB = 68.7%; IC 95% = 42%-83%). 52 out of 64 smear negative TB were investigated by Xpert, with a positive result in 80.8% of cases. Sensitivty of Xpert was 85.7% for smear negative PTB and 75.0% for smear negative EPTB respectively.

Conclusions

Xpert MTB/RIF is a sensitive method for rapid diagnosis of TB, especially in smear negative cases and in EPTB as compared to the conventional ZN staining. Therefore, even in countries with a low incidence for TB, Xpert can serve as a sensitive and time saving diagnostic modality for pulmonary smear negative and EPTB.

Key message

- Diagnosis of smear negative TB is greatly improved by Xpert analysis

Development of a national vaccination education module for nursing training in Finland

Arja Liinamo

A Liinamo[1], U Elonsalo[2], A Nikula[3]
[1]Metropolia University of Applied Sciences, Health Care and Nursing
[2]National Institute for Health and Welfare
[3]Metropolia University of Applied Sciences, Health Care and Nursing
Contact: arja.liinamo@metropolia.fi

In Finland nurses, public health nurses and midwifes are permitted to give vaccines after receiving their qualification. The survey conducted in 2013 in nursing education units ($n = 19$) at the Universities of Applied Sciences (UAS) showed a very big variation in the amount and content of vaccination education. The need for comprehensive, national vaccination education material to ensure high standard vaccination competence of nurses was identified.

The development project, ROKOKO, has carried out in cooperation with three UAS's Nursing education units and the National Institute for Health and Welfare.

The objectives during 2013–14 were to develop multiprofessionally web-based, comprehensive, pedagogically diverse and flexible user-friendly educational module for teachers and students. The material will include also a vaccination competence assessment tool. This development was done by professional cooperation during several workshops including nursing, medical and web-based (Moodle) pedagogy experts. Evaluation during the development process was done by professional peer review and by testing the module with students. During autumn 2014 and spring 2015 the module was piloted by several nursing teachers in UAS contexts on nine Nursing units. Pilot evaluation feedback has been collected from teachers (n = 12) and students (n = 400) and the material is modified based on the evaluation.

The web-based vaccination competence education module has been created. This includes three credits: basic (two credits) and advanced (one credit) vaccination competence. Also the student vaccination competence assessment tool has been produced. The material will be taken into national practice since autumn 2015. In the future material will be updated regularly by professionals.

The national use of the module will enable high standard competence for nurses to contribute to the highest possible vaccination coverage among the population.

Key messages

- The survey conducted in 2013 in nursing education units (n = 19) at the Universities of Applied Sciences in Finland showed a very big variation in the amount and content of vaccination education
- The web-based vaccination competence education module (three credits) has been created in Finland

Outbreak Intervention of Human Brucellosis in a rural area of the northern region of Portugal

Gabriela Saldanha

C Pinto, R Sá Machado, A Castro, C Marinho, M Neto, A Correia, H Monteiro
Public Health Unit, ACeS Tâmega I – Baixo Tâmega, Regional Health Department, Public Health Unit, Oporto Portugal
Contact: mgls.porto@gmail.com

Brucellosis, a worldwide zoonosis, is an old and important public health problem with more than half a million estimated new cases each year.

An outbreak of human brucellosis occurred in November 2014 in Baião. Epidemiological investigation was conducted to identify the vehicle, source of infection, outbreak circumstances and establish control measures. Active search was implemented to identify other cases.

In order to control the outbreak and reduce morbidity, a collaborative approach was operated between Public Health, Veterinary and Economic Food Safety Authorities, General Practitioners, reference Hospitals and Laboratories. The Public Health Authority of the Northern Region of Portugal released an alert to the population for possible cases associated to consumption of raw-cheese produced in Baião. Specific health education campaigns were designed for general population, health professionals and animal and cheese producers.

There were twenty human cases (fourteen women and six men), aged between 12 and 81 years. The agent was Brucella melitensis. Raw cheese, produced in a non-certified factory and distributed in door-to-door sales, was the outbreak cause. The milk's origin was a farm with 17 infected goats (in a total of 32 animals).

The ill animals went to sanitary slaughter. The remaining animals were placed in quarantine and latter, also submitted to sanitary slaughter.

The intervention allowed the identification and treatment of new human cases, change of pattern in animal and cheese producers and population's awareness in matters of food safety.

Establishment of cooperation between and within sectors increases stakeholder's knowledge and leads to disease prevention, as it was showed in this practice.From this experience, the need of raising awareness in the local farmers in relation to financial reimbursement due to remove or slaughter of infected animals is essential to avoid future zoonosis outbreaks. Moreover, local communities should be aware to the possible resurgence of public health food threats due to instable economic conditions.

Key message

- Brucellosis needs effective prevention and control programs to prevent and control outbreaks, but success depends on multidisciplinary and integrated approaches applied at all levels

Knowledge, attitudes, and practices about tuberculosis in Thailand

Supa Pengpid

S Pengpid, K Peltzer, A Puckpinyo, J Chompikul, A Mongkolchati, S Tiraphat, S Viripiromgool, S Leethongdee, T Apidechkul, C Sathrapanya
Mahidol University, Salaya Nakhon Pathom, Thailand
Contact: supaprom@yahoo.com

Background

The aim of this study was to assess tuberculosis (TB) knowledge, attitudes and practice in both the general population and in family members with a TB patient among Thais, migrants and members of ethnic minorities in Thailand.

Method

In a cross-sectional survey general population (N = 3074) and family members of a TB (N = 559) patient aged 18 years and above were randomly selected using multistage cluster sampling and interviewed.

Results

The average TB knowledge score was 5.7 (maximum = 10) in the Thai general population, 5.1 in the migrant and ethnic minorities general population, 6.3 in Thais with a family member with TB and 5.4 in migrants and ethnic minorities with a family member with TB. Overall, poorer correct TB knowledge was found for TB treatment duration (27.1%), TB prevention (cough hygiene: 44.1%), and period of infectiousness in TB patients (44.3%). In multiple linear regression among the Thai general population higher education, higher income and knowing a person from the community with TB was significantly associated with level of TB knowledge. Across the different study populations 18.6% indicated that they had ever undergone a TB screening test; in the general Thai population it was 15.0%, the general migrant and ethnic minority population (25.3%), in the Thai family members with a TB patient (30.8%) and in the migrant and ethnic minority family members with a TB patient (55.1%). Multivariate logistic regression with the whole sample found that older age, lower education, being a migrant or belong to an ethnic minority group, residing in an area supported by the Global Fund, better TB knowledge, having a family member with TB, and knowing other people in the community with TB was associated having ever been screened for TB.

Conclusion

This study revealed deficiencies in the public health knowledge about TB, in particular among migrants and ethnic minorities in Thailand. Socio-demographic factors should be considered when designing communication strategies and TB prevention and control interventions.

Key messages
- This study revealed deficiencies in the public health knowledge about TB, in particular among migrants and ethnic minorities in Thailand
- Tuberculosis control programmes in similar settings should consider innovative strategies for TB education, advocacy, communication and social mobilisation to reach the poor and less-educated

8.W.L. Poster walk: Obesity, food and nutrition

A qualitative analysis of the design and implementation of the soda tax in Mexico

Angela Carriedo

A Carriedo[1], *K Lock*[1], *C Knai*[1], *B Hawkins*[2]
[1]Department of Health Services Research and Policy, Faculty of Public Health & Health Policy, London School of Hygiene and Tropical Medicine, London, UK
[2]Department of Global Health and Development, Faculty of Public Health & Health Policy, London School of Public Health, London, UK
Contact: ana.carriedo@lshtm.ac.uk

Issue

In 2012, civil society organizations (CSO), the Ministry of Health, and food and beverage industry leaders were advocating for a public health policy to help address overweight and obesity in Mexico (71.2% of the population are obese or overweight). This resulted in a regulatory initiative launched in 2013, including a tax on sodas and snacks (10% and 8% respectively). The final policy was implemented in September 2013 despite being criticised by advocacy groups due to its perceived loopholes and accepted by the food industry.

Description of the problem

This qualitative research explores two main questions: 1) What are the influences that shaped the design and implementation of the soda tax in Mexico? 2) How might commercial interests have affected policy responses? Semi-structured interviews were conducted with a purposive sample of 30 key informants from government, civil society and industry in Mexico in 2014 following implementation of the soda tax. Qualitative analysis was employed to capture actors' perspectives about the drivers and barriers in the policy process.

Results

Preliminary findings suggest that the soda tax in Mexico was shaped by range of factors including: a) the lack of progress in reducing obesity despite previous government initiatives b) evidence of limited success of voluntary or self-regulatory measures, c) government requirements at the time for increasing revenue, and d) Ongoing CSO demands. Despite wide engagement, CSOs report being side-lined during the policy design while industry leaders report satisfaction with their input to the policy design, as their values were aligned with government objectives. Due to negotiations between industry and policy-makers, they were on the whole, perceived as partners despite the clear conflicts of interest.

Lessons/Conclusions

Taxing unhealthy beverages is as an important health policy that could help tackle obesity. There is little research to support it. Evaluation research often focuses on health outcomes, such as whether such taxes result in reduced consumption. This research demonstrates that novel research approaches are needed to understand the dynamics between actors during different stages of taxation policies for health. Lessons drawn from this research may have implications for public health governance of other food and beverage taxation policies elsewhere.

Key messages
- Understanding of network dynamics on the policy design, will help in understanding main coincidences and divergences from the evidence-base arguments, due to embedded interests
- Since taxing foods and beverages is emerging as a popular health policy, novel research is needed to understand the dynamics between actors during different stages of the policy process

Calling for policy to recognise the contribution of calories from alcohol to the obesity epidemic

Fiona Sim

F Sim, D Stephenson, M Findlay
Royal Society for Public Health, UK
Contact: fionasim@nhs.net

The obesity epidemic is being tackled by local and national interventions designed to encourage a healthier balance between dietary calorie intake and physical activity. In adults, whilst the consumption of alcoholic beverages is widespread, the part played by alcohol in contributing to obesity has rarely been highlighted in strategies to tackle or prevent obesity. We set out to influence national and European policy so that calories from alcohol are as widely recognised by consumers as calories from food.

In the UK in late 2014, we decided to investigate the part played by alcohol in the obesity epidemic. We conducted a large online survey to ascertain people's knowledge of the calorie value of alcoholic drinks and conducted a small scale experiment in a London pub to test our hypothesis that typical pub customers do not consider the calorie value of their drinks. The findings showed that most members of the public have no idea that alcoholic drinks contribute substantially to their daily or weekly calorie intake and that reducing their intake of calories from alcohol could help in efforts to maintain a healthy weight or to reduce excess weight.

Our action research was part of our campaign to introduce calorie labelling on bottled and canned alcoholic drinks. The European Union is now considering this proposal. In the EU foodstuffs must, by law, display calorie information, but this has not, to date, applied to alcoholic drinks. It is our contention that labelling for calories, as well as for units of alcohol, will permit the consumer to make more informed and healthier choices about the food and drink they purchase.

Key messages
- Calories from alcohol contribute to the obesity epidemic and consumers do not know
- We call for policy to introduce calorie labelling as well as unit labelling on alcoholic drinks

Obesity and depression among population aged 15 and over in Vojvodina

Erzebet Ac Nikolic

E Ac Nikolic, S Kvrgic, S Harhaji, O Niciforovic Surkovic
Institute of Public Health of Vojvodina, Novi Sad, Serbia and Medical Faculty Novi Sad, university Novi Sad, Serbia
Contact: erzebet.ac@izjzv.org.rs

Background

Obesity and depression became increasingly significant health problems in the population of Vojvodina. The literature confirms bi-directional associations between depression and obesity.

The aim of this study was to assess the prevalence of obesity and depression and to assess the relationship between the obesity and depression among population aged 15 and over in Vojvodina.

Methods

The research was conducted as a cross-sectional study on the representative sample of 3550 inhabitants aged 15 and over in Vojvodina as a part of the National study. The survey instrument was interview-administered questionnaire which included additional measurements (body weight, body height).

The presence of depressive symptoms was analyzed by using The Patient Health Questionnaire (PHQ-8) and three score categories were defined: the score 0–4 represents no significant depressive symptoms, 5–9 represents mild depressive symptoms and the score 10 and more represents significant depression (moderate or severe depressive symptoms).

Results

Of the overall participants 5.5% had significant depression and 9.6% had mild depressive symptoms. According to Body Mass Index (BMI), 2.7% of respondents were underweight, 37.7% with normal body weight, 36.5% were overweight and 23.1% were obese. Depressive symptoms were significantly less common in people with normal weight ($\chi 2 = 14,645$, $p < 0.05$).

Conclusions

More than a half of the population is overweight or obese. Among people who are overweight depressive symptoms are significantly more frequent compared to those with normal weight.

Key message Intervention strategies should consider both the physical and the mental health of patients. This indicates or requires that health care providers should monitor the weight of depressive patients and, similarly, in overweight or obese patients, mood should be monitored.

Key message

- The study indicates or requires that health care providers should monitor the weight of depressive patients and, similarly, in overweight or obese patients, mood should be monitored

Do well-being and stress predict healthy eating among university students from European countries?

Lucia Hricova

L Hricova[1], O Orosova[1], J Petkeviciene[2], A Lukacs[3], L Jurystova[4]
[1]Pavol Jozef Safarik University in Košice, Faculty of Arts, Department of Educational Psychology and Health Psychology, Slovak Republic
[2]Lithuanian University of Health Sciences, Medical Academy, Public Health Faculty, Lithuania
[3]University of Miskolc, Faculty of Health Care, Institute of Basic Health Sciences, Hungary
[4]Department of Addictology, 1st First Faculty of Medicine, Charles University in Prague, General University Hospital in Prague, Czech Republic
Contact: lucia.hricova@upjs.sk

Background

A healthy diet has been linked to higher well-being and lower stress. However, the opposite way of causality has already been outlined as well. Thus, it is also relevant to investigate the contribution of emotional well-being (EWB) and perceived stress (PS) at the beginning of university (T1) in explaining the variance of healthy eating (HE) one year later (T2). This has great importance for public health and is therefore the aim of this prospective study.

Methods

942 first year university students (74.5% females, Czech Republic – 19.4%, Germany – 16.3%, Hungary – 17.8%, Lithuania –23.2%, Slovakia –23.1%; average age at T1 – 20,93, SD = 2.9) reported PS (Perceived Stress Scale), EWB (WHO-5) and HE (the ratio of unhealthy to healthy food consumption was computed) at T1 and HE at T2 online as part of the SLiCE study (VEGA 1/0713/15, APVV-0253–11). Multiple linear regression was performed in order to explain the variance of HE at T2 as a full model with gender, country, HE at T1 (as controlled variables), EWB and PS at T1 (as independent variables).

Results

The index of HE at T2 reached a minimum of .4 and maximum of 2.75 (the higher the value the healthier the eating habits) with $M = 1.2$, $SD = .3$. The full model was statistically significant $F(8,941) = 101.32$, $p < 0.001$ and explained 46.5% of the variance in HE at T2. EWB at T1 ($\beta = .08$, $p = .01$) was significantly associated with HE at T2. PS was not significant in the model.

Conclusions

The results revealed the significant contribution of emotional well-being at the beginning of university to healthy eating one year later among students from five countries even after controlling for gender, country and healthy eating at T1. These results indicate that a higher level of well-being predicts healthier eating habits of students. In order to prevent unhealthy eating patterns it is relevant to focus on well-being. Universities may assist in the development of strategies to improve well-being.

Key message

- This study provides evidence of the contribution of emotional well-being at the beginning of university to healthy eating one year later among university students from five European countries

Association between nutritional status and quality of life in frail community-dwelling older persons

Eva Luger

E Luger[1], S Haider[1], A Kapan[1], TE Dorner[1], C Lackinger[2], KE Schindler[1]
[1]Medical University Vienna, Centre for Public Health, Institute of Social Medicine, Vienna, Austria
[2]SPORTUNION Österreich, Vienna, Austria
Contact: eva.luger@meduniwien.ac.at

Background

Healthy aging is one of the challenges for developed countries. A poor quality of life (Qol) in older persons might reflect health problems causing disability, dependency and malnutrition. The aim of this study was to assess the relationship between persons' nutritional status and Qol and to explore which items concerning nutritional status are associated with Qol.

Methods

Qol was measured using the WHOQOL-BREF with the dimensions overall Qol, physical health, psychological health, social relationship, and environment, and the WHOQOL-OLD with the dimensions sensory abilities, autonomy, past, present, future activities, and social participation in (pre)frail community-dwelling older persons. Nutritional status was assessed with the full Mini Nutritional Assessment (MNA®-LF). Linear regression analyses were used to identify whether the nutritional status made an important contribution to the Qol dimensions and to explore the contribution of individual MNA items to Qol, adjusted for age, sex, number of drugs and comorbidities.

Results

83 (pre)frail persons [14% men; 83 years (standard deviation 8)] were analysed. 52% were normal nourished, 8% were malnourished and 45% were at risk of malnutrition. The nutritional status (MNA score) was significantly associated with the following Qol dimensions: overall Qol (ß = 0.260, p = 0.016), physical health (ß = 0.228, p = 0.036), autonomy (ß = 0.243, p = 0.030), and social participation (ß = 0.279, p = 0.013). Individual items of the MNA®-LF, as mobility, lives independently, consumption markers for protein, and patient consider health status, emerged as significant independent factors associated with Qol.

Conclusions

Malnutrition risk is associated with poor Qol. Mobility, independently living, and protein consumption are major influencing factors on Qol in (pre)frail community-dwelling older persons. For public health impact, studies are needed to investigate interventions which improve nutritional status and consequently Qol.

Key message

- There is an association between nutritional status and quality of life in community-dwelling older persons which has implications for prevention, early recognition and treatment of nutrition problems

Visual methods assessing nutritional quality and meals experiences in foodservice

Lise Justesen

L Justesen[1], *E Mertanen*[2]
[1]Metropol University College, Copenhagen, Denmark
[2]JAMK University of Applied Sciences, Jyväskylä, Finland
Contact: liju@phmetropol.dk

In hospitals 30 % of patients are at risk for being undernourished. In Finland 904 million meals were eaten out 2013, half of them in restaurants. These raise public health concerns. New methods are needed to assess meal experiences and nutritional quality.

The aim of this study is to investigate how meal experiences and nutritional quality can be assessed through visual documentation and interview based upon images. Research in Finland and Denmark is combined.

Two visual methods were used. First, research driven photo elicitation (RDPE) was adopted in patients' meal experiences (n = 15) at a Danish hospital with interviews using six images of hospital meals and six images of family meals. The interviews were analysed through thematic analysis. RDPE allows patients to reflect on their meal experiences, providing insight into contextual response to experiences.

Secondly, visual documentation was used in assessing nutritional quality of lunch buffets in 17 Finnish restaurants. Photographs (n = 191) were used with 14-point criteria based on nutrition recommendations and previous research.

Results

RDFE proved to depends on the chosen images. Those of hospital meals let patients reflect on food quality including nutritional quality. However, images representing family meals encouraged patients to reflect contextual to meal experiences. Visual documentation was usable in assessing nutritional quality in restaurants classified in three groups based on their ability to support healthy eating. Eight restaurants got low (< 7) points, eight middle (7- 11) and one high (> 11) points.

Conclusions

Visual documentation methods are useful but need to be developed further. This will be done through a comparative study in Denmark and Finland. The RDPE methods at hospitals need further development, especially in choosing the images. Visual documentation needs validation, but it could become a tool for lay people to evaluate the healthiness of food in eating out settings.

Key messages

- Visual methods associated with validated criteria can be a tool to evaluate healthiness of food
- Images representing family meals, can be used to assess contextual meal experiences at hospitals

Influence of distribution of body fat on cholesterol non-HDL and its effect on kidney filtration

Magdalena Barbara Kaziuk

MB Kaziuk[1], *W Kosiba*[2]
[1]Department of Nephrology Jagiellonian University Medical College, Krakow, Poland
[2]1st Internal Branch of the Zeromski Hospital in Krakow, Poland
Contact: magdalena.kaziuk@uj.edu.pl

Background

In the XXI century we have to deal with the epidemic of obesity which is important risk factor for the cardiovascular and kidney diseases. Lipoproteins are directly involved in the atherosclerotic process. Non-high-density lipoprotein (non-HDL) began following widespread recognition of its superiority over LDL as a measurement of vascular event risk. Non-HDL includes residual risk which persists in patients after achieved recommended level of LDL.

Materials and Methods

The study covered 111 patients (52 females, 59 males, age 51,91 ± 14 years), hospitalized on the Intern Department. Body composition was assessed using the bioimpendance method and anthropometric measurements. Physical activity data were collected during the interview. The nutritional status and the obesity type were determined with the Waist to Height Ratio and the Waist to Hip Ratio. A function of the kidney was evaluated by calculating the estimated glomerular filtration rate (eGFR) using MDRD formula. Non-HDL was calculated as a difference between concentration of the Total and HDL cholesterol.

Results

10% of patients were found to be underweight; 23.9% had correct body weight; 15,08% had overweight, while the remaining group had obesity: 51,02%.

People with the android shape have higher non-HDL cholesterol versus with the gynoid shape ($p = 0.003$). The higher was non-HDL, the lower eGFR had studied subjects ($p < 0.001$). Significant correlation was found between high non-HDL and incorrect dietary habits in patients avoiding eating vegetables, fruits and having low physical activity ($p < 0.005$).

Conclusions

Android type of figure raises the residual risk of the heart disease associated with higher levels of non-HDL. Increasing physical activity in these patients reduces the level of non-HDL. Non-HDL seems to be the best predictor among all cholesterol measures for the cardiovascular events and worsening eGFR.

Key words: obesity, non-HDL cholesterol, glomerular filtration rate, lifestyle

Key message

- Android type of figure correlating with higher levels of non-HDL cholesterol raises the residual risk of the cardiovascular events

Obesity and hypertension as a growing public health problem in Province of Vojvodina, Serbia

Tanja Tomasevic

T Tomasevic[1,2], *D Milijasevic*[1,2], *E Ac Nikolic*[1,2], *S Ukropina*[1,2], *Z Topalov*[2]
[1]Center for Health Care Analysis, Planning and Organization, Institute of Public Health of Vojvodina, Novi Sad, Serbia,
[2]Medical faculty of University of Novi Sad, Serbia
Contact: tanja.tomasevic@izjzv.org.rs

Background

Obesity and hypertension are the one of the main global health problem with short- and long-term health consequences. The aim of this paper is to determine the prevalence and relations between obesity and high blood pressure with age, in 2006 and 2013 in adult population in Vojvodina.

Methods

Research was conducted in 2006 and 2013 as a cross-sectional study on the representative sample of 4148 and 3337 respectively of adult population aged 20 and over in Vojvodina, as a part of the National study. Survey instrument was interview - administered questionnaire and measurements. For the purpose of this paper we analyzed demographic data, value of the blood pressure and body weight. Three readings of BP were taken, with a 1 minute interval between measurements. The mean value of those three BP measurements was used to classify the participants into 4 groups (normal, high - normal, stage 1 hypertension, stage 2 hypertension). Classification was made according to reference of Joint National Committee. Body Mass Index was calculated according to defined methodology.

Results

According to BMI, 2.8% of polled adults were underweight, 39.0% with normal nutritional status, 35.6% were overweight and 22.5% obese in 2013. In 2013 the prevalence of obesity incresed for 2.1% compared to 2006. Prevalence of hypertension in 2006 was 28.5%, while in 2013 was 43.5%. Multivariate statistic had reveald that the influence of BMI on hypertension was lower in 2013 (OR = 1.96; 95% CI = 1.68–2.30) than in 2006 (OR = 3.52; CI = 2.91–4.27), while the influence of age on hypertension indicated that age group 35–65 were in significantly higher risk for developing hypertension in 2013 (OR = 2.70; CI = 2.21–3.29) compared to 2006 (OR = 1.85; CI = 1.52–2.24).

Conclusions

Prevalence of obesity and hypertension in Vojvodina is rising, and obese adults are twice more likely to develop hypertension. Also hypertension among adults in age group 35–65 increased in 2013 compared to 2006.

Key message Increasing prevalence of obesity and high frequency of hypertension among aged 35–65 is alarming. This fact should be reflected in policy considerations, intervention and prevention programs.

Key messages

- Increasing prevalence of obesity and high frequency of hypertension among aged 35–65 is alarming
- Strategies in our country which are focused primarily on the health sector are insufficient for solving the growing public health problem of hypertension and obesity

Association between environmental factors and individual factors with obesity in Brazilian adults

Fernanda Penido Matozinhos

FP Matozinhos[1], CS Gomes[1], LL Mendes[2], MC Pessoa[3], G Velasquez-Melendez[1]
[1]Universidade Federal de Minas Gerais, Belo Horizonte, Brazil
[2]Universidade Federal de Juiz de Fora, Juiz de Fora, Brazil
[3]Universidade Federal de Viçosa, Viçosa, Brazil
Contact: nandapenido@hotmail.com

Background

Obesity is a serious public health problem and has a great impact on the disease patterns of populations. The characteristics of the environment in which people live play an important role in obesity in many countries. Our objective was estimate the association between environmental factors and individual factors with obesity in adults.

Methods

This cross-sectional epidemiological study, developed using the Protective and Risk Factors for Chronic Diseases by Telephone Survey database (Vigitel 2008–2010) from Belo Horizonte. Obesity was defined as a BMI $\geq$ 30 kg/m2. To characterize the built and social environments, we developed a georeferenced database with environmental data. The data analysis included multilevel logistic regression. The area covered by the basic health units was defined as a neighbourhood unit.

Results

A total of 5,273 individuals were evaluated. The increase in the number of establishments that sell healthy food (OR = 0.88, 95% CI: 0.80 to 0.96), number of restaurants (OR = 0.97, 95% CI: 0,96- 0.99), number of places for physical activity (OR = 0.89, 95% CI: 0.84–0.95) and total income (OR = 0.96, 95% CI: 0.94–0,98) is associated with lower odds of obesity, in addition, these associations remained significant after adjustment for age, gender, education and food consumption.

Conclusions

These findings contribute to a better understanding of the complex relationship between environmental and individual determinants of obesity, which can play an important role in the development of effective interventions and expand obesity control programs in large cities.

Key message

- Obesity has significant health consequences and there is a complex relationship between environmental and individual determinants of obesity

Television advertising of food in Slovenia: Time for marketing restrictions?

Igor Pravst

Ž Korošec, I Pravst
Nutrition Institute, Ljubljana, Slovenia
Contact: igor.pravst@nutris.org

Background

The marketing of energy-dense foods has been recognised as a probable causal factor in children's overweight and obesity. Currently, this challenge is mostly being addressed through voluntarily commitments of food producers, while regulatory marketing restrictions are only used in a few countries. To stimulate policymakers to start using nutrient profiling to restrict food marketing, a harmonised model was recently proposed by the WHO Regional Office for Europe, but such a model is not yet used in practice. Our objective was to evaluate the television advertising of foods in Slovenia by applying the WHO Nutrient Profile model.

Methods

An analysis was performed using a representative dataset of 93,902 food-related advertisements broadcast on seven major television stations in Slovenia during January and December 2013. The advertisements were linked to specific foods, which were then subject to categorisation/nutrient profiling. Where necessary, the dataset was supplemented with food composition data from food packaging and other sources. Nutrient profiling was conducted on a set of advertisements broadcast in peak viewing times of children aged 4–9 years.

Results

Advertising of chocolate and confectionery represented 37% of food-related advertising in all viewing times, and 77% in children's (4–9 years) viewing times. The second most frequently advertised food category in children's viewing times was product lines (15%), following by food supplements, cakes & biscuits, and other beverages. Moreover, 96% of the ads in the dataset were classified as not permitted by the WHO model.

Conclusions

Evidence from Slovenia shows that, in the absence of efficient regulatory marketing restrictions, TV advertising of food to children is almost exclusively linked to energy-dense foods. The proposed WHO model represents a useful tool for developing legislation that would limit children's exposure to the advertising of unhealthy foods.

Key messages

- Chocolate and confectionery is by far the most advertised food category on television channels in Slovenia
- The proposed WHO nutrient profile model represents a useful tool for developing legislation that would limit children's exposure to the advertising of unhealthy foods

Effect of behavioral approach on weight loss in overweight and obese women at the primary care

Gül Ergör

T Sevim Yilmaz, G Ergör
Department of Public Health, Dokuz Eylul University Medical School, Izmir, Turkey
Contact: gul.ergor@deu.edu.tr

Methods

This is a prospective interventional study. Women aged 25 to 64 years with a body mass index (BMI) between 25.0 and 39.9 kg/m2 who were admitted to the Obesity Counseling Unit in Balcova Community Health Center from December 2013 to July 2014 were included. By defining 1.5 kg/m^2 reduction in BMI as the expected effect of behavioral intervention and considering a 25% loss to follow-up, a sample size of 80 was estimated. Patients were interviewed at the beginning and at days 15, 30, 45, 60, 90, 120, 150 and 180. A behavioral model consisting of self-monitoring, setting a weight loss goal, stimulus control, developing an alternative behavior, social support, and self-rewarding was applied to all subjects in order to increase physical activity and to gain healthy eating habits. Data including eating habits, amount of physical activity, and body weight of the subjects were recorded at baseline and at day180.

Results

A total of 103 overweight/obese women who fulfilled the inclusion criteria were enrolled. Eighteen patients were excluded because of loss to follow up and 85 patients (82.5%) completed the study. Mean age was 47.8 ± 9.1 years. The mean body weight was 82.9 ± 10.8 kg at baseline and it decreased significantly to a mean of 79.9 ± 10.7 kg at day 180 ($p < 0.05$). Similarly, the mean BMI was 32.1 ± 4.0 kg/m2 at baseline and it decreased significantly to a mean 31.0 ± 3.9 kg/m2 at day 180 ($p < 0.05$).

Conclusion

By increasing physical activity and gaining healthy eating habits, a behavioral approach consisting of behavioral modification techniques applied by general practitioners and primary care health professionals can help overweight/obese individuals to lose weight.

Key message

- A practical behavioral model to increase physical activity and gain healthy eating habits applied by general practitioners can help overweight/obese individuals to lose weight

Dietary cadmium intake in an Italian population

Marcella Malavolti

M Malavolti[1], C Malagoli[1], I Bottecchi[1], L Vescovi[2], M Modenesi[2], P Castiglia[3], S Sieri[4], V Krogh[4], M Vinceti[1]
[1]CREAGEN Environmental, Genetic, and Nutritional Epidemiology Center, University of Modena and Reggio Emilia, Modena, Italy
[2]IREN Group, Reggio Emilia e Piacenza, Italy
[3]Department of Biomedical Sciences, Hygiene and Preventive Medicine, University of Sassari, Sassari, Italy
[4]Epidemiology and Prevention Unit, Fondazione IRCCS Istituto Nazionale dei Tumori, Milan, Italy
Contact: marcella.malavolti@unimore.it

Background

Cadmium has been recognized as a carcinogen on the basis of occupational studies. The main source of exposure to cadmium, except for smokers and for occupationally-exposed individuals, is food. It has been reported that more than 80% of food-based cadmium comes from cereals and vegetables. The average cadmium intake from food generally varies between 8 and 25 μg/day. However, the amount of exposure may differ among individuals. Limited evidence about current main sources of cadmium intake in the Italian population, however, is available.

Methods

We estimated dietary cadmium intake in 719 residents in the Emilia Romagna region of northern Italy using a validated food frequency questionnaire specifically developed as part of the European Prospective Investigation into Cancer and Nutrition (EPIC) study. We calculated the cadmium dietary intake and we identified the food categories or single foods which gave a major contribution to cadmium intake.

Results

Daily average cadmium intake was 14.04 (±7.82) μg, 0.21 μg/kg body weight in women and 0.19 μg/kg body weight in men. These values are lower than those reported for the whole European population (0.36 μg/kg body weight/die) and they are unequivocally below to the limit of 1 μg/kg established by the Joint FAO/WHO Expert Committee on Food. Previous reports, our study confirms that 80% of food-based cadmium comes from cereals and vegetables. In fact, in the current study food categories that most contributed to cadmium intake were mushrooms (30.6%), rice (16.9%), pasta (7.6%), bread (6.1%), leafy vegetables (5.3%) and shellfish (4.2%).

Conclusions

Our analysis suggests that cadmium exposure to this northern Italy population is lower than that expected on the basis of the European average intake. However, a high consumption of some specific food items can considerably increase cadmium intake.

Key messages

- Our study analyzed the intake of cadmium through food in the Italian population
- Our analysis suggests that cadmium exposure to this northern Italy population is lower than that expected on the basis of the European average intake

Nickel sensitivity in Italian overweight-obese patients

Carla Lubrano

C Lubrano[1], S Masieri[2], D Costantini[1], D Francomano[1], M Watanabe[1], S Mariani[1], S Basciani[1], LM Donini[1], A Lenzi[1], L Gnessi[1]
[1]Department of Experimental Medicine, Sapienza University, Rome, Italy
[2]Department of Otorhinolaryngology, Audiology and Ophtalmology, Sapienza University, Rome, Italy
Contact: carla.lubrano@uniroma1.it

Background

The high consumption of nickel (Ni)-containing products raised concerns about their potential hazardous effects on human health. Ni is the most frequent cause of contact allergy (about 17% of women and 3% of men). Ni is present in most of green foods but the content may vary considerably from place to place due to the difference in Ni content of the soil. Several studies have investigated the relationship between Ni intake by food and onset of systemic symptoms. In this regard, positive cutaneous patch test may be considered a marker of Ni exposure. Furthermore, Ni proves to be a potential carcinogenic agent and has multiple toxic effects in various systems; Ni exposure is associated with altered sperm morphology and with arterial stiffness in humans; may increase risk of adverse cardiovascular outcomes and seems able to cause endocrine toxicity.

Aim

To evaluate the prevalence of Ni allergy and exposure in a population of Italian obese patients (2010–2014). Materials and methods. Study population: 641 obese patients (BMI 37.68 ± 7.51 Kg/m2), 589 females and 52 males, The main measures were anthropometric data, metabolic parameters, pituitary hormones, body composition. Epicutaneous patch test containing a 5% solution of Ni sulphate was performed in each patient.

Results

Patch tests were positive in 430 patients – 63.1%. This group showed higher BMI ($p < 0.03$) and waist circumference ($p < 0.03$) and reduced lean mass percentage ($p < 0.01$). The Ni positive group showed an increased prevalence of metabolic syndrome (51% vs 41%), higher triglyceride ($p < 0.02$), HOMA-IR ($p < 0.001$) and C - reactive protein ($p < 0.005$). Basal and stimulated levels of GH and IGF-1 were significantly lower in the group with Ni allergy ($p < 0.005$).

Discussion

The prevalence of positive Ni patch test in this Italian obese population is much higher than in reference European population. The positive obese patients showed profound differences towards negative ones: were heavier and fatter; showed increased cardiovascular risk factors, insulin resistance and reduced activity of GH/IGF1 axis. These preliminary data suggest that Ni exposure may be linked to complicated obesity and to pituitary damage; it seems reasonable to suggest public health actions to implement and strengthen surveillance systems with regards to Ni exposure

Key messages

- Nickel exposure may be understimated and could be linked to complicated obesity
- Regarding Nickel exposure, public health actions are recommended to implement and strengthen surveillance systems

Tomorrow's healthy society - research priorities for foods and diets

Petros Maragkoudakis

AK Bock, P Maragkoudakis, J Wollgast, S Caldeira, A Czimbalmos, M Rzychon, B Atzel, F Ulberth
Joint Research Centre, European Commission
Contact: petros.maragkoudakis@ec.europa.eu

Issue/problem

Health promotion and disease prevention are crucial to Europe's Health challenges, especially for non-communicable diseases (NCDs). Major but preventable NCD risk factors are poor lifestyle choices, including physical inactivity and unhealthy diets.

Description

Notwithstanding current efforts to promote healthier diets, ensuring a healthier future requires continuous adaptation of policies and relevant scientific research to support them. Thus, the European Commission's Joint Research Centre has conducted a foresight study entitled 'Tomorrow's healthy society - research priorities for foods and diets' to identify research priorities for foods and diets and support the implementation of Horizon 2020, the EU Framework Programme for Research and Innovation 2014–2020. This foresight study followed a scenario building methodology with a time horizon of 2050, focusing on consumers and factors that influence diets and health and involving three expert participant workshops.

Results

Four alternative future scenarios were developed, used to identify potential challenges and opportunities for foods and health in 2050 as well as research priorities needed to address them. Ten research priorities falling into four thematic areas were identified: 1) Towards healthier eating: integrated policymaking, 2) Food, nutrients and health: cross-interactions and emerging risks, 3) Making individualised diets a reality, 4) Shaping and coping with the 2050 food system.

Lessons

Most of the identified research priorities should be addressed in the near future in order to deliver results within a mid-term horizon (2030).

Main messages

Apart from research priorities, this study emphasised the need for integrated policy-making and a systems approach to effectively address the future of healthy and sustainable diets.

Key messages

- Need for an integrated policy-making approach to face the complexity of foods & health challenges
- identified research priorities should be addressed in the near future to deliver mid-term results

Bioaccumulation of metals and benzo(a)pyrene in Haliotis spp and oral risk assessment

Margherita Ferrante

C Copat[2], S Longo[1], M Ferrante[2], G Oliveri Conti[2], G Arena[2], A Grasso[2], A Dimartino[2], F Conte[1]

[1]Department of Veterinary Science, University of Messina (Italy)

[2]Department of Hygiene and Public Health ''G:F. Ingrassia'', University of Catania (Italy)

Contact: marfer@unict.it

The bioaccumulation of contaminants in sedentary organisms, also consumed by humans, allows to assess coastal pollution and the health risk from oral exposure dose. In this study we have evaluated cadmium (Cd), lead (Pb), mercury (Hg) and benzo(a)pyrene (BaP) concentrations in Haliotis spp, a mollusk sampled along the Ionian coast of Sicily and Calabria. This species is highly consumed by the local population, thus the oral exposure risk related to the chosen pollutants was evaluated.

For metal determination samples will be mineralised with acid digestion and detected with ICP-MS. BaP was detected with HPLC after sample homogenization, sonication with a solution of dichloromethane:acetone 1:1 (v:v) and concentration in nitrogen flow.

The average values (av) of Pb, Cd, Hg and BaP were lower than the maximum tolerable limits set by Regulation (CE) no. 1881/2006 for mollusks (1.5, 1.0, 0.5 mg/kg and 10 μg/kg respectively). In the samples from Sicily the av were 0.083, 0.195, 0.009 mg/kg and 3.45 μg/kg and in those from Calabria the av were 0.250, 0.106 e 0.011 mg/Kg and 7.70 μg/kg respectively. BaP values were sporadically higher than the permitted limits in both sites. According to Food and Agricultural Organization (FAO) in Italy there is an ingestion rate of 9 g/capita/day of mollusks and the Daily Intake (DI) of an adult of 70 Kg body weight resulted lower of the Provisional Tolerable DI suggested by the WHO and FAO for all metals.

No great concern arise from trace metals content in all the samples, both for the average daily intake. The occasional detection of BaP concentrations above the law limit is not to be underestimated, since the compound is highly genotoxic and carcinogenic, and till date risk assessment evaluation are still poorly characterized to assess maximum tolerable oral exposure dose. Currently we have implemented the coastal monitoring with the aim of strengthen public health surveillance system, well defining risk derived from oral exposure.

Key messages

- First data on metals detected in edible tissue of Haliotis spp and estimated daily intake are not of concern for public and environmental health
- Sporadically high values of BaP require a more intensive monitoring due to the genotoxic and carcinogenic compound potential

Red meat and cancer risk in a network of case–control studies focusing on cooking practices

Maurizio Montella

M Montella[1], M Di Maso[2], A Zucchetto[3], C Bosetti[4], M Taborelli[3], A Gini[3], A Crispo[1], M Libra[5], E Negri[4], F Levi[6], C La Vecchia[2]

[1]Unit of Epidemilogy, Istituto Tumori Fondazione G. Pascale, Napoli, Italy

[2]Department of Clinical Sciences and Community health, Università di Milano, Italy

[3]Unit of Epidemiology and biostatistics, Centro di riferimento Oncologico, IRCCS, Aviano, Italy)

[4]Department of Epidemiology, IRCCS, Istituto di Ricerche Farmacologiche Mario Negri, Milano, Italy

[5]Department of Biomedical Science, Università di Catania, Catania, Italy

[6]Cancer Epidemiology Unit and Registre Vaudois des Tumeurs, InstitutUniversitaire de Medecine Social et Preventive, Lausanne, Switzerland

Contact: m.montella@istitutotumori.na.it

Background

Consumption of red meat has been related to increased risk of cancers. Cooking methods could modify the magnitude of this association, as production of chemicals depends on the temperature and duration of cooking.

Methods

We analyzed data from a network of case–control studies. The studies included 1465 oral and pharyngeal, 198 nasopharyngeal, 851 laryngeal, 505 esophageal, 230 stomach, 1463 colon, 927 rectal, 326 pancreatic, 3034 breast, 454 endometrial, 1031 ovarian, 1294 prostate and 767 renal cancer cases. Controls included 11 656 patients admitted for acute conditions. Odds ratios (ORs) and confidence intervals (CIs) were estimated by multiple logistic regression models.

Results

Daily intake of red meat was significantly associated with the risk of cancer of the oral cavity and pharynx (OR for increase of 50 g/day = 1.38; 95% CI: 1.26–1.52), nasopharynx (OR = 1.29; 95% CI: 1.04–1.60), larynx (OR = 1.46; 95% CI: 1.30–1.64), esophagus (OR = 1.46; 95% CI: 1.23–1.72), colon (OR = 1.17; 95% CI: 1.08–1.26), rectum (OR = 1.22; 95% CI:1.11–1.33), pancreas (OR = 1.51; 95% CI: 1.25–1.82), breast (OR = 1.12; 95% CI: 1.04–1.19), endometrium (OR = 1.30; 95% CI: 1.10–1.55) and ovary (OR = 1.29; 95% CI: 1.16–1.43). Fried meat was associated with a higher risk of cancer of oral cavity and pharynx (OR = 2.80; 95% CI: 2.02–3.89) and esophagus (OR = 4.52; 95% CI: 2.50–8.18). Risk of prostate cancer increased for meat cooked by roasting/grilling (OR = 1.31; 95% CI: 1.12–1.54).

No heterogeneity according to cooking methods emerged for other cancers. Significant associations with boiled/stewed meat also emerged for cancer of the nasopharynx (OR = 1.97; 95% CI: 1.30–3.00) and stomach (OR = 1.86; 95% CI: 1.20–2.87).

Conclusions

analysis confirmed red meat consumption as a risk factor for several cancer sites, with a limited impact of cooking methods.

Key messages

- These findings call for a limitation of red meat consumption in populations of Western countries

Prevalence of overweight and obesity and its contribution to Disease Burden in Ireland:1990–2010

Shelly Chakraborty

S Chakraborty[1], K Balanda[2], IJ Perry[1], Z Kabir[1]
Department of Epidemiology and Public health,University college Cork,Ireland,
Institute of Public health,Dublin Ireland1
Contact: shelly.chakraborty@ucc.ie

Background

The alarming increase in overweight and obesity is a global public health challenge. Accurate estimates of related disease conditions are crucial for informing national health policies. Different organizations (WHO, World Bank) have computed varying estimates in the past. We employed the recent Global Burden of Disease (GBD) study methodology for international comparability. We provide detailed estimates on five major non-communicable diseases (NCDs) attributable to overweight and obesity between the two time periods (1990 and 2010) in Ireland.

Methods

Publicly available secondary data on five NCDs (cardiovascular, stroke, respiratory disorders, cancers and diabetes) and one common risk factor-a higher BMI (>=25 kg/m2) were abstracted from the Institute for Health Metrics and Evaluation (United States) website. Overweight and obesity attributable years-of-life-lost (YLLs); years-lived-with-disability (YLDs); and disability-adjusted life-years (DALYs) for the five NCDs were computed.

Results

A relative increase of 13.1% in overweight and obesity prevalence was observed between 1990 (51.8%; 95% CI = 49.8%-53.7%) and 2010 (58.6%; 95% CI = 56.8%-60.5%), with no significant gender differences. Overweight and obesity-attributable NCD deaths increased (from 11.7% to 12.5%), respectively. The absolute changes (per 100,000) in overweight and obesity-attributable GBD metrics for the five NCDs are: DALYs decreased from 2088 to 1686; YLLs decreased from 1774 to 1246; YLDs increased from 314 to 440, and the overall life expectancy increased from 75 to 80 years, respectively.

Conclusion

Despite improvements in overall mortality and life expectancy, overweight and obesity are still public health challenges within Ireland, with increased years living with disability. Policy makers will be ranking health problems to target health resources efficiently based on these estimates. Therefore, accurate estimates employing standardized methodology are crucial.

Key messages

- We employed the recent Global Burden of Disease study methodology to estimate overweight and obesity-attributable burden of the five major non-communicable diseases in Ireland between 1990 and 2010
- Local policy makers will be ranking health problems to target health resources efficiently based on these estimates and hence accurate estimations employing standardized methodology are crucial

The impact of physical activity on prisoners' Quality of Life in Italy: a multicenter study

Daniele Mipatrini

D Mipatrini[1], A Mannocci[1], D Masala[2], D Di Thiene[1], J Rizzo[1], S Meggiolaro[1], G La Torre[1]
[1]Department of Public Health and Infection Diseases, Sapienza University of Rome, Italy
[2]University of Cassino, Italy
Contact: daniele.mipatrini@uniroma1.it

Background

Imprisoned people have usually a poor health status in comparison with the general population. Correlation between physical exercise and quality of life (QoL) has been proven for general population and for prisoners. In Italy no studies have been performed on the issue.

The aim of the present study is to investigate the possible association between the Quality of Life (QoL) and Metabolic Equivalents of physical activity (MET) in male inmates in Italy.

Methods

This cross-sectional study was carried out starting from 2011 in two prisons located in Rome and Cassino (Italy).

The questionnaire included the International Physical Activity Questionnaire, the SF12 questionnaire evaluating the QoL and its physical (PCS) and mental (MCS) components and socio-demographic and anthropometric (BMI) information.

Descriptive, bivariate and multivariate analyses were performed in order to assess the impact of physical activity,anthropometric and demographic variables on the inmates' QoL.

Results

121 inmates answered to the questionnaire.

The bivariate analysis shows an inverse association between PCS and BMI variation (P: 0,02) and a direct association with MET (0,04). MCS correlates inversely with the smoking attitude (P: 0,02) and directly with MET (P: 0,02) and with age of inmates (P:0,03). Educational level, civil status, nationality and years of detention do not significantly correlate with the inmates' QoL.

According with the multivariate analysis increases of MET improves both PCS (P: 0,02) and MCS (P: 0,03).

Conclusion

Both physical and mental components of quality of life are affected by physical activity that seems to be a main determinant, joint with the BMI variation and smoking attitude, of inmates' quality of life. A multicenter study is ongoing in Italy to confirm preliminary results.

Programs promoting physical activity should be planned and implemented in Italian prisons in order to improve inmates QoL and allow a better social integration at the end of detention.

Key messages

- Physical activity has a positive impact both on physical and mental aspects of prisoners' QoL
- Public health interventions addressed to promote physical activity in Italian prisons may significantly improve inmates' QoL and their possibility of social integration at the end of detention

The effect of weight increases during pregnancy on birth weight and preterm delivery

Manuela Chiavarini

M Chiavarini[1], L Minelli[1], D Nucci[1], L Salmasi[2]
[1]Department of Experimental Medicine, Public Health Section, University of Perugia, Italy
[2]Department of Political Science, University of Perugia, Italy
Contact: manuela.chiavarini@unipg.it

Introduction

The high prevalence of unhealthy preconception body weight and inappropriate gestational weight gain among pregnant women is an important public health concern. The amount of weight gained during pregnancy can affect the immediate and future health of a woman and her infant. Low or high pre pregnancy body mass index (BMI) and weight increases during pregnancy are linked to an increased risk of adverse neonatal outcomes, especially regarding to low birth weight (LBW), high birth weight (HBW) and pre-term delivery (PTD). We studied the impact of weight increases in pregnancy on LBW, HBW and PTD.

Methods

Data were obtained from women interviewed at the Teaching Hospital of Perugia (Italy). We gathered a large sample of about 2,000 women, which were asked about weight increases during pregnancy, socio-demographic characteristics and newborns' health. The revised classification proposed by Institute of Medicine (IOM 2009) was usedto identify women with weight increases considered as more or less than normal. Logistic regression models were adoptedto assess the effect of non-normal weight increases on LBW/HBW, defined as weighing less than 2,500 gr or more than 4,000 gr at birth respectively, and on PTD delivery.

Results

According to our estimates we find that women with a less than normal weight increase during pregnancy have a higher probability of LBW (O.R. = 2.195, s.e. = 0.524) and of PTD (O.R. 1.769, s.e. = 0.323), whereas those with a more than normal weight increase have a higher probability of HBW (O.R. = 2.439, s.e. = 0.406).

Conclusions

We find that having a non-normal weight increase during pregnancy leads to undesired outcomes in terms of birth weight of newborns, increasing significantly the probabilities of LBW, HBW and PTD, implying negative consequences on newborns' current and future health.

Key messages

- Non-normal maternal weight increase rises the probability of LBW, HBW and PTD
- Unhealthy preconception BMI and inappropriate gestational weight gain is an important public health concern

Food safety and nutritional habits in elderly: knowledge to promoting active ageing

Patrizia Laurenti

P Laurenti[1], C de Waure[1], C De Meo[1], M Raponi[1], A Corsaro[1], J Del Prete[1], AG Spagnolo[2], D Sacchini[2], R Bernabei[3], E Manes Gravina[3], F Landi[3], A Sgadari[3], C Grassi[4], W Ricciardi[1]
[1]Institute of Public Health, Section of Hygiene, Università Cattolica del Sacro Cuore, Rome, Italy
[2]Institute of Bioethics, Università Cattolica del Sacro Cuore, Rome, Italy
[3]Department of Geriatrics, Neurosciences and Orthopedics, Università Cattolica del Sacro Cuore, Rome, Italy
[4]Institute of Physiology, Università Cattolica del Sacro Cuore, Rome, Italy
Contact: plaurenti@rm.unicatt.it

It is estimated that by 2025 more than 20% of Europeans will be 65 or over, with a particularly rapid increase in the number of over 80s. Chronic diseases, malnutrition, weakened immune system and other health factors increase risk of foodborne illness and hazardous nutritional habits in elderly. Food safety and nutrition security are essential to promote active ageing. In order to evaluate elderly's perceptions, practices and attitudes with respect to food safety, an articulate questionnaire was elaborated to investigate knowledge and critical aspects about unsafe food-handling practices and nutrition habits, including ethical aspects.

This study was conducted in Gemelli Teaching Hospital, in Rome, Italy, between April 2014 and March 2015. Were interviewed 201 elderly $\geq$65 years old attending the Geriatrics Ward, the Outpatient Unit and the Gym of the Centre of Aging Medicine. Data were analyzed by means of frequencies and mean and standard deviations.

The mean age of the sample was 74 years (SD = 7.7). The subjective perception of safe nutrition is high, in fact 64.2% of the elderly respondents think to have a balanced diet. Interviewed people get information about proper nutrition mainly from TV, papers and Internet (30%) and from health workers (34.8%) such as dietitian and nutritionist whereas only 15.4% from general practitioners.

Regarding food safety and hygiene, 33.8% refers to consume expired food, even more than once a month. Between 80% and 90% of all the participants affirm to follow all the food safety practices during preparation and cooking, even though 49.3% defrost food at room temperature before preparation.

These results underline the need for empowerment of elderly with respect to nutritional health and food safety. In fact, specific and targeted educational interventions for the elderly and their care-givers could be promoted in order to improve adoption of recommended food safety practices and safe nutritional habits among older adults.

Key messages

- This study focuses on factors on which act to promote active ageing and to prevent foodborne illness in elderly
- Educational and preventive interventions for the elderly and their care-givers are a key measure of public health to stay healthy into old age

Canadian food retailers' reasons for adopting the Eat Well Campaign (2013–14) - A qualitative study

Mylène Turcotte

M Turcotte[1], M Fernandez[1], S Desroches[1], M Marquis[2], J Dufour[3], V Provencher[1]
[1]Institute of Nutrition and Functional Foods, Laval University, Quebec, QC, Canada
[2]Department of Nutrition, Faculty of Medicine, University of Montreal, Montreal, QC, Canada
[3]Department of Anthropology, Faculty of Social Sciences, Laval University, Quebec, QC, Canada
Contact: mylene.turcotte@fsaa.ulaval.ca

Background

In 2013, Health Canada (HC) launched the Eat Well Campaign (EWC), a year-long social marketing campaign focusing on food skills, in collaboration with stakeholders including food retailers. Given that adoption of an innovation depends, in part, on its characteristics, the purpose of this study was to explore the characteristics of the innovation (i.e. EWC) that were reported by food retailers as reasons for collaborating with HC.

Methods

Semi-structured phone interviews were conducted with Canadian food retailers (n = 8) who were involved in the campaign. Interviews were conducted during and following the campaign. Thematic content analysis of interviews transcribed verbatim was performed by three coders assisted by NVivo10 software. An a priori codebook based on Rogers' Diffusion of Innovations decision process model was used.

Results

Preliminary findings show that the main perceived relative advantages of participating in the EWC were: enhanced positive organizational image and credibility in terms of partnering with a credible organization like HC, providing relevant information to their customers related to healthy eating, and having an opportunity to collaborate with HC and other retailers. The majority of retailers perceived that the EWC fit with their organization's mission and practices as well as with their customers' needs. The EWC was not seen as complex, and therefore not a barrier for its adoption.

Conclusion

Preliminary analysis identified relative advantages, compatibility and low-complexity as being the key characteristics of the innovation related to the adoption of the EWC by food retailers. These findings will be useful to understand the innovation-decision process and the reasons for private-public partnerships in public health nutrition.

Key messages

- This study identifies key attributes of the innovation (i.e. a healthy eating campaign) related to its adoption by food retailers
- These findings contribute to a better understanding of collaborations between the retail food industry and public health organizations

5. POSTER DISPLAYS

Y.A. Poster Displays: Global health

Trade, environmental degradation, and population health in low-income countries

Ying-Chih Chuang

Ying-Chih Chuang
School of Public Health, Taipei Medical University, Taiwan
Contact: yingchih@tmu.edu.tw

Background

The theory of ecological unequal exchange explains how trade and various forms of economic activity create the problem of environmental degradation, and lead to the deterioration of population health. Based on this theory, the present study examined the interrelationships among economic characteristics, ecological footprints, CO2 emissions, infant mortality rates, and under-five mortality rates in low-income countries.

Methods

A longitudinal ecological study design focused on 66 low-income countries from 1980 to 2010 was used. Data were collected from the World Development Indicators, United Nations Commodity Trade Statistics Database, Global Footprint Network, and Polity IV Project. Linear mixed models with a spatial power covariance structure and a correlation that decreased over time were constructed to accommodate the repeated measures.

Results

After controlling for country-level sociodemographic characteristics, debt and manufacturing economic activities were positively associated with infant mortality rates and under-five mortality rates in sub-Saharan Africa. By contrast, export intensity and foreign investment were beneficial for reducing infant mortality rates and under-five mortality rates in Latin America and other regions. Although the ecological footprint and CO2 emissions did not mediate the relationship between economic characteristics and health outcomes, export intensity increased CO2 emissions, but reduced the ecological footprint in sub-Saharan Africa. By contrast, in Asia, the Middle East, and North Africa, although export intensity was positively associated with both the ecological footprint and CO2 emissions, the percentage of exports to high-income countries was negatively associated with the ecological footprint.

Conclusions

The results of this study indicate that policymakers should consider a balance between protecting the environment and economic reactivation and growth.

Key messages

- This study indicates that policymakers should consider a balance between protecting the environment and economic reactivation and growth
- The influence of trade and environmental degradation on population health vary by region

Inequalities in health among Japanese children: The Healthy Parents and Children 21 Plan in Japan

Zentaro Yamagata

Z Yamagata[1], R Shinohara[1], Y Akiyama[1], K Matsuura[2], T Ojima[3], K Tamakoshi[4], K Ichikawa[5], Y Yamazaki[6]
[1]Department of health, University of Yamanashi, Yamanashi, Japan
[2]Fukuoka prefecture University, Fukuoka Japan
[3]Hamamatsu medical University, Hamamatsu, Japan
[4]Nagoya University, Nagoya, Japan
[5]Bunkyo Gakuin University. Tokyo, Japan
[6]Aichi Children's Health and Medical Center, Aichi, Japan
Contact: zenymgt@yamanashi.ac.jp

Objective

Health inequality is an important issue, although health inequalities among Japanese children have not been closely examined. The purpose of this study was to investigate regional inequalities in child health, in order to determine their causes.

Methods

This study evaluated patient demographics, existing statistics, and self-administered questionnaires from a survey of approximately 117,000 caregivers. This survey was conducted among caregivers who participated in health checks for 3-month-old, 18-month-old, and 3-year-old children in total 470 municipalities that consist of each 10 municipalities were randomly selected according to population-stratified areas in each prefecture. This survey was performed as a final evaluation in "Healthy Parents and Children 21," which is a national plan for maternal and child health that began in April 2001 and will end in March 2015.

Results

In the fiscal year 2010, 2-fold and 5-fold differences in birth rates and infant mortality rates, respectively, were observed between the prefectures. For smoking rates during pregnancy in the prefectures, the first quintile was 9.1%, compared to a fifth quintile of 18.1% (a 2-fold difference). The frequency of breast-feeding was 39.2% in the first quintile and 59.6% in the fifth quintile (a 1.5-fold difference). In addition, there was a 2.5-fold difference between the prefectures in the prevalence of dental caries among 3-year-olds, and a 2-fold difference in the primary school obesity rates. To correct these inequalities, causal relationships must be identified, and priorities assigned to the appropriate countermeasures. Population attributable fractions (PAF) are powerful indices for this objective.

Discussion

This study clarified the health inequalities among Japanese children. However, as only one time point was used, there may be some variation in the observed differences, and longitudinal studies are needed to confirm these inequalities. In addition, PAFs can vary according to to regional morbidity or exposure, and calculating the regional PAFs is important for creating improvement measures that are customized for each region.

This study supported by Health Labour Sciences Research Grant.

Key messages

- Inequalities in health among Japanese children are found
- Population attributable fractions are powerful indices to correct inequalities

Health-related Behaviours of International Students at a Language School in Ankara

Nasar Shayan

Z Çoban, K Aalimi, S Nasar
Institute of Public Health, Hacettepe University, Ankara, Turkey
Contact: drnesarshayan@yahoo.com

Background

This study was a survey conducted to identify certain sociodemographic characteristics and health-related behavioral factors of international students studying at a language center in Turkey. The studey also aimed at determining their knowledge on and attitude towards healthy lifestyle behaviors.

Methods

The study was a cross-sectional survey conducted at a language center in Turkey in 2014. A total of 201 out of 230 Turkish-learning students (87.4%) completed the survey questionnaire. Data was collected on socio-demographic variables, health status and heath-related behaviors. Prevalence and mean values were calculated for the variables according to the relevant categories.

Results

A little over half (53.2%) of the respondents were male. The mean age of the participants was 26.3 ± 6.41 years with 70.7% having some form of university education. Majority (87%) identified their economic status as adequate or avearge while 84,1% reported that their health standing is at least good. Interestingly, more than half (54.2%) of the participants do not have any form of health insurance. The self-reported body mass index (BMI) was normal in a vast majority (76,3%) of the participants and nutritional intake was reported excellent in half (51.7%). 35.8% reported not performing any form of regular exercise, whereas only about a quarter (22.4%) exercise regularly. One out of every 8 respondent (12.9%) smoked cigarette on daily basis while only 1% are daily alcohol consumers. Only 6.5% reported substance use among the respondents.

Conclusion

This survey suggested a lower-than-average prevalence of certain risk factors among the international students of this language school. However, most of these students are not covered under any insurance scheme. Efforts should be made to address this problem and to continue promoting a healthy lifestyle among this student population.

Key messages

- The prevalence of lifestyle related risk factors seem to be lower in this student population than native students
- Healthy lifestyle should be promoted among international students in Turkey and an insurance scheme offered to cover them

Adolescent School Health and Risky Behaviors in Low Sociodemographic Region of Ankara, Turkey

Burcu Kucuk Bicer

B Kucuk Bicer, H Ozcebe
Public Health Department, Hacettepe University Public Health Institute, Ankara, Turkey
Contact: drburcubicer@gmail.com

Aim

This study was planned as a descriptive-cross sectional study in order to investigate risky health behaviors of adolescent age groups in a low socioeconomic region.

Methods

The study was performed in high schools situated in Ankara. The schools were chosen from Anatolian High Schools (HS) where the students pass an exam to enter and Governmental HS. Data was collected by using socio-demographic questionnaire form, Health Risk Behaviors Scale and Parenting Attitudes Scale (PAS) from students with a technical pencil-paper by researcher in classroom. Data from 1467 adolescents was analysed. Frequencies, one way anova (post-hoc bonferroni), independent t tests and regression analysis for affect measurement were used in SPSS program. Ethical approval of this study was taken from Hacettepe University Ethical Committee.

Results

Mean age of adolescents was 17.15(0.4) and 55.1% were female. Mean Health Risks Behavior Scale score was 43.55 (7.42) at Anatolian HS and 43.99 (7.88) at Governmental HS. The difference between schools are found in the RHB subscales of physchosocial (t:−2.772, p:0,006) and physical activity (t: 2.261, p: 0.024) risky behaviors ($p < 0.05$). The families in the Anatolian HS had more responsiveness scores of PAS than the Governmental HS. According to our linear model, being a female ($\beta = 0{,}608; p < 0{,}001$), low income level ($\beta = 1{,}021; p = 0{,}019$), low school success ($\beta = 1{,}348; p < 0{,}001$), high Protectiveness scores ($\beta = 0{,}608; p < 0{,}001$) and high Respectiveness scores ($\beta = -0{,}117; p = 0{,}004$) of the families were determiners of risky behaviors.

Conclusions

Consequently, this study was important to show family attitudes/behaviors and income levels are important indicators of developing risky health behaviors of the adolescents in an area of high deprivation. Interventions to support the disadvantages of these adolescents can be preferred.

Key messages

- Adolescents with risky health behaviors have some disadvantages. Interventions must be planned having regard to these disadvantages
- Adolescent health risks and their solutions should take place in country strategic plans

Research on Obesity and Type 2 Diabetes among African Migrants: the RODAM study

Charles Agyemang

C Agyemang[1], E Beune[1], K Stronks[1], S Bahendeka[2], For RODAM Consortium
[1]Department of Public Health, Academic Medical Centre (AMC), University of Amsterdam, Amsterdam, The Netherlands
[2]International Diabetes Federation, Africa Region, Kampala, Uganda
Contact: c.o.agyemang@amc.uva.nl

Background

Obesity and type 2 diabetes (T2D) are highly prevalent among ethnic minority groups in Europe for reasons that are still unclear. Consequently, in 2012, European Commission funded four SICA projects to study gene-environmental interactions and their impact on obesity and T2D among different ethnic minority groups. RODAM (Research on Obesity and Diabetes among African Migrants) study, one of the four SICA projects, aims to study the complex interplay between environment (e.g. lifestyle), healthcare, biochemical and (epi)genetics and their relative contributions to the high prevalence of obesity and T2D among Sub-Saharan Africans in diaspora (www.rodam.eu).

Methods

Multi-centre study among homogenous Sub-Saharan African migrants (i.e. Ghanaians) aged >25 living in three European countries (i.e. Germany, The Netherlands, and UK) and their compatriots who did not migrate and living in rural and urban Ghana. The RODAM project aimed to randomly recruit 1,250 participants from each site ($n = 6250$); and carry out a qualitative study on perceptions and knowledge of obesity and T2D in all site.

Results

Significant achievements have been made since the inception of the study. Each site fostered links with the Ghanaian community through community leaders and Ghanaian media. We have developed information material including project's aims and procedures as well as a health education leaflet for the Ghanaian community in all sites. Data management infrastructure for the RODAM project, including a web based questionnaire, electronic case report form and data warehouse have been developed. The data collection is completed in all sites with a remarkable 98% success rate of the intended sample size. 26 Focus Group Discussions have been conducted across the 5 sites, 152 interviews with people with diabetes conducted across the 5 sites and an additional 30 interviews conducted with overweight and underweight individuals. Analyses of the data are currently ongoing.

Conclusion

The RODAM project has achieved a significant result in collecting these unique data on homogeneous African migrants in three European countries and their compatriots who did not migrate and living in their home country. These data will shed light on gene-environmental interactions and their impact on obesity and T2D among migrant populations.

Key messages

- RODAM project has achieved a significant result in collecting these unique data on homogeneous migrants and non-migrants
- These data will shed light on gene-environmental interactions and their impact on obesity and T2D among migrant populations

Health of students in Rennes: by combining the quantitative approach with a qualitative approach

Béatrice Valdes

B Valdes, P Loncle
Department of human, social sciences and health behaviour, French School of Public Health, Rennes, France
Contact: beatrice.valdes@ehesp.fr

Background

There are 60,000 students in higher education in the Rennes basin, almost a third of the population of Rennes. Yet, there is not much objective data to qualify living conditions of students in the area. The question of student health is one of relatively little studied areas of youth sociology or even of the public health field. It has been proved that young people and students are quite a healthy population in France, but a number of behaviors are commonly singled out as being of concern, such as risky consumption practices, festive practices or ill-being. It is legitimate to enquire which behaviors stem from typical habits that are common to young people and those which arise from problematic practices that may be considered harmful to their health in the long term.

Methods

Our research entitled "Living Conditions and Health of the Students of Rennes 2014", conducted by a multidisciplinary team of researchers and students in coordination with the City of Rennes and Greater Rennes, is a mixed method study comprised of:

- A quantitative survey which consisted of an online questionnaire of 107 questions dealing with different aspects of student life, including health, sent to the 40,000 students of both universities in Rennes, from which we received just over 7,500 responses;
- Forty semi-structured concurrent interviews aimed at obtaining rich data which included the health of students in Rennes.

Results

Although students reported a positive general perception of their own health, the survey identified certain issues related to the well-being of the students and students' self-perception. The difficulties stated by students are particularly visible when we look at both the reasons given for avoiding healthcare and for the consumption of harmful substances (tobacco, alcohol, etc).

Conclusions

Analysis of student health allows us to highlight the specific difficulties of this population.

Student health varies depending on their profile.

Key messages

- Analysis of student health allows us to highlight the specific difficulties of this population
- Student health varies depending on their profile

Participation rates in Epidemiologic studies

Pedro Ramos

P Ramos[1], R Santana[2], J Cima[2], P Marques[2], A Baptista[1], L Moreno[1], A Macedo[1]
[1]Vision Rehabilitation Lab.; Centre Department of Physics and Optometry, University of Minho, Braga, Portugal
[2]Health Policy and Management Dept, Escola Nacional Saude Publica - Univ Nova de Lisboa, Lisboa, Portugal., Lisboa, Portugal
Study Group: POrtoguese Visual Impairment Study Group(PORVIS-Group)
Contact: pedro.lima.ramos@outlook.com

Introduction

It is widely perceived that participation rates in epidemiologic studies have declined in recent years. High nonparticipation levels have a harmful effect in all studies, especially in those in which the underlying causes of such a phenomenon are associated with the epidemiologic area of interest. Thus, it is important to look into this matter more deeply.

Purpose

The aim of this study was to investigate the profile of the individual that agrees to participate in epidemiologic studies and the profile of who doesn't. The main goal is to set out a statistical model which allows us to predict the chances of a subject with a given set of characteristics to become a part of a study with epidemiologic nature. We considered several factors such as age, gender, education level, marital status, the distance between the Hospital and the area where the patient lives and how often he goes to the Hospital.

Results

We have now evidence that men more often decline Epidemiologic study participation. About 64.4% of the individuals that do not agree to take part in epidemiologic studies are men and 35.6% are women. The average age of participants is 64.7 years; the age average of nonparticipants is 70.5 years. Surprisingly, the distance between the Hospital and individual's home has not stood out so far as a relevant factor to justify participation rates. On the contrary, the number of years of education appears to matter in the sense that subjects with higher education levels tend to be more open to participate than individuals with less years of schooling.

Discussion

With this approach we hope to diagnose the reasons why study participation has been declining and hope to contribute to strategies to increase participation rates in public health studies.

Acknowledgements: This study has been supported by FCT (COMPETE/QREN) grant ref: PTDC/DPT-EPI/0412/2012.

Key messages

- High nonparticipation levels have a harmful effect in all studies, especially in those in which the underlying causes of such a phenomenon are associated with the epidemiologic area of interest
- We hope to find out the reasons why study participation has been shrinking so that low participation rates can be avoided

The state of heat adaptation at the local level in Japan: a qualitative exploratory study

Melanie Boeckmann

M Boeckmann[1,2]
[1]University of Bremen, SOCIUM, Bremen, Germany
[2]Leibniz Institute for Prevention Research and Epidemiology - BIPS, Bremen, Germany
Contact: m.boeckmann@uni-bremen.de

Background

Excess mortality and morbidity during hot temperature events are preventable Public Health concerns. Japan with its high urban and population density is vulnerable to heat exposure, but also has the financial and organizational means to invest in adaptation. This study examines the state of heat-related adaptation at the local level in Japan to gain a better understanding of mechanisms, barriers, and opportunities for the prevention of adverse health effects.

Methods

For this exploratory qualitative study semi-structured expert interviews were conducted, with overall eight government or research agency employees in three Japanese prefectures. Interview transcripts were openly coded and subsequently used in a situational analysis of the state of adaptation. The situational analysis included ordered situational maps, social world maps, and positional maps.

Results

Respondents described a broad range of actions that are currently implemented at the local level in Japan. Among these were text messages with weather warnings, print media ads, and heat warnings issued through local TV channels. Structural adaptation programs such as the provision of cooling towels, building new parks and access to cooled public spaces also exist. Context-specific is the involvement of community volunteers (Minsei-in). Overall, interviewees in all three prefectures stressed their dependency on allocation of funds, which was challenged by political prioritization after Fukushima. Risk perception among the community was also perceived as a difficulty in broader adaptation implementation.

Conclusions

Political recognition of heat-related adaptation largely determines the scope of its implementation at the local level in Japan. Challenges lie mostly with risk perception and subsequent funding decisions. Of interest for further exploration are the cultural practice of community volunteering and the assignment of responsibility for prevention between government and the community.

Key messages

- Heat adaptation at the local level in Japan is strong but challenged by political prioritization after Fukushima
- Structural prevention and community involvement as adaptation strategies could be investigated for their cultural transferability to other contexts

Searching for 2014 Ebola epidemics: a global analytical study of Google Trends-based query volumes

Cristiano Alicino

C Alicino[1,2], *NL Bragazzi*[1], *V Faccio*[1,2], *C Trucchi*[1,2], *C Paganino*[1,2], *D Amicizia*[1], *D Panatto*[1], *R Gasparini*[1], *GC Icardi*[1,2]
[1]Department of Health Sciences (DiSSal), University of Genoa, Genoa, Italy
[2]I.R.C.C.S. University Hospital San Martino - IST National Institute for Cancer Research, Genoa, Italy
Contact: cristiano.alicino@unige.it

Introduction

The 2014 Ebola epidemic in West Africa represents the largest Ebola outbreak since the first epidemics in Sudan and Zaire in 1976, attracting worldwide media interest and coverage even though unbalanced and occasional. No researches have investigated the relationship of search engine query data with Ebola outbreak since the very beginning of the epidemic and no studies have compared the worldwide traffic on Google about Ebola with the traffic of the three main affected countries

Methods

This study aimed at assessing the correlation between the Internet Ebola-related activities and Ebola epidemiological data from a quantitative standpoint in order to describe and understand how Ebola has been communicated worldwide and at the level of the three main affected countries. Google Trends (GT) was used for exploring the Internet activities related to Ebola from December 2013 to February 2015.

Results

Overall, GT index demonstrated that the Internet activities were concentrated in the three West African countries mainly affected by the current epidemic. The correlation between the number of Ebola cases registered in all countries during the study period and GT index was very high ($r = 0.916$; p-value < 0.001). However, the correlation between global new weekly cases of Ebola and weekly GT index resulted moderate ($r = 0.553$, p-value < 0.001). At level of the three countries mainly affected by Ebola epidemics, the correlation between new weekly cases of Ebola reported in World Health Organization patient database and weekly GT index varied from weak (Guinea: $r = 0.232$, p-value $= 0.07$) to moderate (Sierra Leone: $r = 0.481$, p-value < 0.001; Liberia: $r = 0.640$, p-value < 0.001).

Conclusions

In this study, GT showed a coarse-grained nature, correlating with global epidemiological data in an excellent way, but being weaker at a finer level, probably being prone to distortions induced by an unbalanced media coverage.

Key messages

- Epidemiological and Google Trends data about 2014 West Africa ebola epidemics globally correlated in an excellent way
- Google Trends showed a coarse-grained nature: the correlation with epidemiological data was weaker at a finer level, probably being prone to distortions induced by an unbalanced media coverage

Barriers to Hospice Care in Saudi Arabia

Robert W. Buckingham

M Mendieta[1,2], *RW Buckingham*[1], *J Kietzman*[1], *A Helal*[1]
[1]University of Michigan Flint Campus, Flint, Michigan, USA
[2]Institute for Healthcare Policy and Innovation, Ann Arbor, Michigan, USA
Contact: maxmend@umflint.edu

Background

Hospice care was established in Saudi Arabia in 1992 at the King Faisal Specialist Hospital. The key barriers to the full implementation of the analgesic are religious, acceptance, knowledge, and availability of the medications necessary for palliative care. Access to palliative care services is limited by lack of awareness about palliative care, knowledgeable providers, and inadequate community resources. The western concept of ‘‘good death’’ does not have the same meaning in Muslim communities as death is anchored in the Qur'an, Allah and faith. For palliative and hospice care, the role of religion in Saudi Arabia presents unique limitations in the form on the use of opioids. A survey was taken to access the knowledge of hospice by Saudi Arabian students studying at a Mid-Western public university.

Methods

Survey included all of 477 Saudi Arabian students studying at a Mid-Western public university with a response rate of 87 (19.4%) of 447 Saudi Arabian students. Questions addressed were demographics, student's status, and if they know what hospice care is.

Results

The survey showed that 74 (86.05%) of 86 Saudi Arabian students attending a Mid-Western public university did not know what hospice care is and only 12 (13.95%) of 86 Saudi Arabian students had some knowledge about hospice care.

Conclusions

Caring for dying family members in Muslim society is seen as responsibilities of relatives, which makes having patients enter hospice care as ‘‘shirking’’ of that responsibility. The barriers currently faced by hospice care in Saudi Arabia in part differ from the western experience, but not from what we can consider a universal philosophy of hospice care.

Key message

- The future of hospice and palliative care in Saudi Arabia depend on increasing the availability, access, and dissemination of information about hospice care

Knowledge across the field and the world in practising public health care

Anne May Teige

AM Teige, *M Hedlund*
Telemark University College, Faculty of Health and Social studies, Norway
Contact: anne.m.teige@hit.no

Background

This is an educational and research project anchored in the discipline of public health. The Norwegian and Indian governments have significant collaborations in this field. Norway and India have higher education systems aligned towards providing public primary care education and primary health care with high quality and knowledge-based skills. Telemark University College in Norway and SP Pune University in India developed a project identifying topics for comparative research programmes in public health. Both nations have higher education systems that could benefit from the use and exchange of mutual expertise regarding contextual and cultural issues in public health. The project therefore reviews comparative situations in selected research areas and identifies public health education needs in order to develop curricula offered as online or at-site courses for the areas identified as important for global collaboration in public health. The local primary health care in both nations must benefit from the education and the knowledge in a way that utilizes quality in primary public health care.

Objectives

To explore how students develop reflective public health nursing practice through cultural encounters in India.

Results

The method is an exploratory design. Data were collected through participatory observations, students' logs and focus group interviews with students and teachers during practical placement periods in India. Using an interview guide, the study explores how a public health nursing education programme needs to be organized. The study will show how scientific and cultural understanding in the field transforms into health promotion practice.

Conclusion

The cultural encounter provides a fruitful way of learning as it gives an opportunity to share thoughts and reflect on value systems.The personal practice gives cultural competence, reflexivity and consciousness.

Key message

- The work has an impact on how public health education programmes can encourage increased knowledge and cultural sensitivity in primary public health care in advanced and developing countries

International Health Engagement: A Charter for International Health Partnerships in Wales

Lauren Ellis

L Ellis, M Ward, M Dyakova
Public Health Wales, Policy, Research and International Development Directorate/ International Health Coordination Centre, Cardiff, UK
Contact: lauren.ellis2@wales.nhs.uk

The International Health Coordination Centre (IHCC) carried out all-Wales mapping of international health activity and practices through the seven National Health Service (NHS) health boards and three trusts. The picture of international health engagement varies widely in different regions.

There is a lack of resources, coordination and limited capacity as well as different policies and practices in place. A need to reduce duplication, increase efficiency and provide a more favourable and coherent environment for international health work has been identified.

With the Charter for International Health Partnerships in Wales, developed through national consultation, we aim to strengthen the commitment of all Welsh stakeholders to evidence-based practice, shared learning and international partnerships based on equality and the pursuit of mutual, tangible benefits.

The Charter has been supported by Welsh Government, and launched by the Welsh Minister for Health and Social Care. All of the health boards and trusts in Wales have pledged to support to it.

Committing to and implementing the Charter creates a clear and coherent agenda for health boards to support their staff to work internationally; and to ensure effective, efficient and safe international partnerships. The Charter focuses on four principles: Organisational responsibilities e.g. meeting WHO standards on medical donations, Reciprocal partnership working, Good practice e.g. needs assessments and Sound governance e.g. reporting impact. A responsible group and system for monitoring and evaluation have been set up.

The Charter is an innovative and effective way of achieving all-Wales commitment, ownership and partnership for taking international health agenda forward. For the first time in Wales, the UK and Europe all health bodies have voluntarily chosen to work together on a standard path to ensure strong and coherent international engagement and message.

Key messages

- A coordinated, national approach to international health engagement ensures efficient and consistent messages and support for those working internationally
- Organisational commitment supported by the Government creates a coherent favourable environment for sound, legitimate&effective international partnerships, contributing to a global citizen culture

Measles: small steps for local authorities, a big step for global health

Rita Sá Machado

R Sá Machado, S Barbosa, I Cruz, H Monteiro, F Machado, G Saldanha, D Antunes
Oporto International Travel Health Centre, Public Health Regional Department of the North Region of Portugal, Oporto, Portugal
Contact: ritamanuelmachado@gmail.com

Several efforts have been made globally to eliminate measles. People that are vaccinated with two doses of MMR vaccine or acquired immunity after illness are permanently protected against the disease. If vaccination rates for this highly contagious communicable disease are high and there are not large local asymmetries, the community is also protected through herd immunity.

The global movement of population influences the spread of measles. In 2014, countries from the European Union reported 3616 cases to the European Control of Communicable Diseases (ECDC). In Portugal there were no cases during this period.

During an international travel, a non-immunised traveller is at risk of having measles if he/she contacts with a case during the contagious phase.

In the appointment at the Oporto International Travel Health Centre (ITHC) and in relation to measles, the travel medical doctor (TMD) verifies if the immunisation status is updated or if the traveller has a credible history of illness, despite the destination. If these two conditions are not verified, the TMD recommends the vaccination with MMR vaccine. This vaccine is part of the National Vaccination Programme and is free of charge.

The main goals of this practice are to decrease the risk of measles in the community and the risk of importing a case of measles.

In 2014 the number of medical appointments at ITHC was five thousand four hundred and seventy five. All TMD implemented this practice and two hundred and eighty eight MMR vaccines were inoculated.

At the ITHC the practice of verifying the vaccination status or history of illness in the medical appointment has been routinely executed, working as an opportunity to vaccinate the individual and achieve our public health goals.

The high vaccination rates for measles in Portugal and the limited number of disease cases during the previous years strengthen the evidence of effectiveness of this practice.

Key messages

- Vaccination is a highly effective measure to control measles
- The medical appointment and the measures implemented at the Travel Health Centre are important tools to consolidate the national and international recommendations of measles elimination programme

Microscopic inter-observer reliability of trained lab technicians diagnosing intestinal parasites

Devy Elling

D Elling[1], MA Cárdenas-Dimaté[1], A Balleza-Carreón[2], J Monárrez-Espino[1]
[1]Department of Public Health Sciences, Karolinska Institutet, Stockholm, Sweden
[2]Rural Hospital No. 26, Mexican Institute of Social Security, Guachochi, Chihuahua, México
Contact: joel.monarrez-espino@ki.se

Background

Intestinal parasitic infections caused by Giardia lamblia (GL), Ascaris lumbriocoides (AL) and Entamoeba histolytica/dispar (Eh/Ed) are highly prevalent in poor and marginalized populations. In resource-constrained settings, direct microscopic fecal examination continues to be a common diagnostic method in spite of its limited accuracy. Aim: This study aimed at illustrating the effect of training local laboratory technicians from a rural reference hospital located in a marginalized indigenous region of northern Mexico to assess the inter-observer reliability of GL, AL, and Eh/Ed microscopic diagnoses.

Methods

Two experienced technicians working at the hospital were trained and standardized for two full weeks in the Parasitology Laboratory at the National Children's Hospital from Mexico City. Diagnoses were made by microscopy of two serial stool samples processed using the modified Faust zinc sulphate centrifugal flotation technique to concentrate AL eggs and GL and Eh/Ed cysts. Observations were done independently, and the final diagnosis for each observer was established when at least one of the two samples resulted positive. Reliability analyses from serial stool samples were conducted using Cohen's kappa correlation coefficient (κ) for each parasite.

Results

Agreement between observers reached 88.7, 72.4, and 80.5% for Eh/Ed, AL, and GL, respectively. The largest kappa coefficient was observed for GL ($\kappa = 0.55$), followed by Eh/Ed ($\kappa = 0.30$), and AL ($\kappa = 0.08$). Prevalence of Eh/Ed, AL and GL according to observers 1 and 2 were 3.4 vs. 13.5%, 4.0 vs. 28.2%, and 32.2 vs. 33.3%, respectively.

Conclusion

Except for GL, reliability was very low leading to major differences in prevalence estimates. While training can improve microscopic diagnoses, the use of better and relatively affordable diagnostic techniques (e.g. immunoenzymatic) is required to obtain more reliable results.

Key messages

- Reliability between technicians was low leading to major differences in prevalence estimates
- Better and relatively affordable diagnostic techniques are required to obtain more reliable results (e.g. immunoenzymatic)

Violence and related factors among high school students in semirural areas of Eskişehir, Turkey

Burcu Ataly

B Atalay[1], E Unal[1], FM Onsüz[1], B Işıklı[1], S Metintaş[1], C Yenilmez[2]
[1]Public Health Department, Eskişehir Osmangazi University Faculty of Medicine, Eskişehir, Turkey
[2]Mental Health and Disease Department, Eskişehir Osmangazi University Faculty of Medicine, Eskişehir, Turkey
Contact: burcustkn@hotmail.com

Background

Violence is a preventable public health problem and has been defined as an epidemical issue in Turkey, as well as in world. The study aimed to determine the violence behaviors of the students attending to high school in the semirural areas of Eskişehir in the educational year of 2014 and also to evaluate the related factors.

Methods

The study was a cross sectional study including 1465 (57.3%) high school students living in the Education and Research Region of Eskişehir Osmangazi University. The data regarding socio-demographic characteristics of the participants was collected via a questionnaire prepared by researchers and also Youth Risk Behavior Surveillance System survey of the Centers for Disease Control and Prevention was applied to the students. Violence behaviors were defined as bearing arms such as guns, knife or stick in the last 1 month and being a part of a fight at school or school environment in the last 12 month. The data were evaluated with descriptive statistics, chi-square test and logistic regression analysis.

Results

It was found that 8.5% of the students had violence behaviors at schools or school environment. Violence behaviors were higher among male students according to female students OR (95%CI); 4.66 (2.43–8.95), among unemployed fathers' children according to working fathers' children 2.27 (1.38–3.75), among smokers according to nonsmokers 2.56 (1.61–4.07), among alcohol drinkers compared to not drinkers 3.85 (2.42–6.12) and among the students not feeling themselves in safe according to students feeling safe 2.88 (1.82–4.55).

Conclusions

The violence behaviors are mostly related to changeable factors. Community-based public health interventions are required to change these factors.

Key message

- Violence at schools is a preventable social problem related to avoidable risk factors which can be prevented by effective interventions

Y.B. Poster Displays: European Public Health

Planning a healthy city – mapping urban structures and health in a metropolitan region in Germany

Robynne Sutcliffe

R Sutcliffe, D Feiler, S Moebus
Centre for Urban Epidemiology, Institute for Medical Statistics, Biometry and Epidemiology, University Hospital Essen, University Duisburg-Essen, Germany
Contact: robynne.sutcliffe@uk-essen.de

Background

For healthy urban planning data is needed that not only links socio-demographic and environmental factors to the health of it's population but also considers the quality of urban structures. This is also important when it comes to monitoring and regularly reporting on the health of urban populations. However such data sets that link these concepts are largely missing, especially on a small scale. Therefore, the aim here is to analyse such data sets by linking and mapping urban structures and selected health indicators in a metropolitan region in Germany.

Methods

We used data for the Ruhr Area, a polycentric metropolitan region in Western Germany that comprises 15 different cities and districts. The data was available from the State North-Rhine Westphalia (NRW) and the Federal Ministry for Health NRW and included a set of indicators on land use, housing and health. Life expectancy and mortality, when applicable age-adjusted mortality, were used as health indicators. Data was mapped in a Geographic Information System (ArcGIS).

Results

Maps indicate differences in life expectancy and preventable deaths in the Ruhr Area on city and district level. Results show that regions with low life expectancy or high rates of preventable deaths are more likely to have a higher proportion of traffic and industrial areas and a lower amount of green areas. Similar differences were identified in terms of high-rise and detached/semi-detached houses.

Conclusion

To map and link such data in a polycentric metropolitan region helps to identify, monitor and report on the relationship between urban structures and health determinants. Furthermore, it helps to generate hypothesis on associations and environmental equity. Subsequently, an analysis of such associations will be essential for evidence-based health strategies and urban planning concepts. Since small scale particularly health data is still missing, new analytical approaches need to be discussed.

Key messages

- To link urban structure and health data not only fosters healthy urban planning but also helps to strengthen environmental equity in a metropolitan region
- To map urban structure with health data is a helpful tool for health monitoring and reporting. It helps to identify characteristics at multiple levels that may be related to health

Improving Hospital Food: evaluating the impact of the UK Food for Life Partnership

Selena Gray

R Means, J Orme, H Pitt, M Jones, D Salmon
University of the West of England, Bristol, UK
Contact: selena.gray@uwe.ac.uk

The Food for Life Partnership (FFLP) is an initiative led by the Soil Association (SA), a non governmental organisation in the UK which aims to encourage a healthy, sustainable food culture across communities. The SA runs a Catering Mark scheme that provides an independent endorsement that food providers are taking steps to improve the food they serve, using fresh ingredients which are free from undesirable additives and trans fats, are better for animal welfare, and comply with national nutrition standards.

FFLP work in schools has already shown a significant impact on children's nutrition, and the FFLP approach has now been extended to other settings, including hospitals, care homes, universities and early years settings. This research aimed to evaluate the progress of FFLP within the hospital setting.

A case study approach was undertaken within three pathfinder organisations working with the Soil Association covering 7 large acute hospitals and community services. Semi-structured interviews were undertaken with staff and stakeholders, focusing on progress in establishing a strategic approach to a healthy food culture, and impacts for patients, relatives and staff. Analysis of relevant documents (meeting minutes, strategic plans and reports) provided additional data.

The study found that the FFLP approach offers enormous scope to improve the quality of food in hospital settings, for patients, visitors and staff. Each of the three will shortly achieve a SA Catering Mark for staff and visitor catering. However, the current models of delivering patient food using centralized cook-chill facilities mean it is not possible to meet the current SA catering mark requirements. Particular challenges with the quality of out of hours food provision for staff have been identified, with a strong reliance on vending machines with very limited choices available.

FFLP has potential to catalyse a systems approach to food within organisations, and to provide an external lever to help drive up the quality and nature of the food provided by external contractors for patients and staff. Progress depends on cross-institution involvement including leadership commitment and recognition that food quality is closely linked to core objectives such as care provision.

Key messages

- The importance of food in hospitals for patients, staff and visitors is not always recognized and is of variable quality, with much provision now delivered under contract from external providers
- Engagement with the Food for Life Partnership has the potential to catalyse significant changes in the focus on food within hospitals, and improve the quality of food provided

Health policy strategy in local level: experience from the country with high health inequalities

Mindaugas Stankunas

A Berzanskyte[1], M Jakubauskiene[2], R Butkeviciene[3], F Stepukonis[1], M Butikis[2], R Kalediene[2]
[1]Institute of Public Health, Vilnius University, Vilnius, Lithuania
[2]Lithuanian University of Health Sciences, Kaunas, Lithuania
[3]Klaipeda University, Klaipeda, Lithuania
Contact: mindstan@gmail.com

Bacground

Lithuania is facing one of the highest health inequalities rates among European Union countries, for instance average life expectancy is 68.53 yrs for men and 79.38 yrs for women; suicides 25.6/100000 in urban area, 42.0/100000 in rural area, men five times more than women, etc. For this reason health inequalities become health political priority in Lithuania what made to establish health policy papers specifically tackling this problem. However barriers and enablers to implement needed measures in local level are not exactly clear. Therefore we conducted the study with the aim to identify perceptions of municipality stakeholders on human capacities to detect and reduce health inequalities.

Methods

Qualitative study with focus groups was carried out in 6 different municipalities. Participants' number in each heterogeneous group varied from 7 to 14 persons. In general 58 people from health and other sectors took part in discussions. Discussions were recorded and transcribed. Content analysis was done after multiple reading. Insights were discussed and reviewed by three researchers.

Results

Surveillance and reduction of health inequalities is not prioritised agenda topic in municipality level. This phenomenon is recognised and perceived more often and more clear by the specialists working in health sector, mostly in public health. Some actions of municipality institutions most likely contribute to health inequalities reduction. However participants empahasised lack of unanimous systematic methodology, as well as multisectorial collaboration. They also miss information about evidence based effective interventions. Effect on health of different interventions is not evaluated enough and comprehensively between different sectors.

Conclusions

Health policy strategy is not sufficient, more state input – financial and managing - is needed. Initiatives of health and other sectors need methodological support for health inequalities surveillance and reduction.

Key messages

- Health policy strategy is not sufficient, more state input – financial and managing - is needed
- Initiatives of health and other sectors need methodological support for health inequalities surveillance and reduction

The professional trajectory of Roma health scholarship program beneficiaries: a tracer study

Stela Garaz

Stela Garaz
Roma Education Fund
Contact: sgaraz@romaeducationfund.org

After seven years of implementing the Roma Health Scholarship Program (RHSP), the initiating partners Open Society Foundations and Roma Education Fund proceeded towards evaluating its results through a tracer study. RHSP is a scholarship and academic support scheme for Roma from Bulgaria, Macedonia, Romania, and Serbia pursuing medical education. Its aim is to create a generation of Roma professionals in the medical field who would contribute to the improvement of the access to quality health services for Roma communities, as well as to help dismantling the negative stereotypes about Roma with their own positive examples of Roma qualified professionals. Since it was launched, RHSP provided support to over 500 Roma from the four countries. The tracer study is focused on the following questions:

- To what extent has the RHSP support been critical for its beneficiaries to enroll in medical education and graduate it successfully?
- To what extent have RHSP beneficiaries succeeded in integrating the professional world after obtaining medical degrees?

- Have RHSP beneficiaries been active in supporting Roma inclusion in general, by working with/ for Roma communities during their studies or in their working environment? Have they contributed to changing stereotypes about Roma?
- Does RHSP constitute a practice model to be scaled up and/ or implemented in other countries with relatively large Roma communities?

The past RHSP beneficiaries and the current beneficiaries who have been in the Program for at least two years constitute the target group of the study. The methodology is based on a combination of quantitative and qualitative approaches. The quantitative part is based on an online anonymous survey questionnaire completed by the target group, as well as on background statistical information about the academic environments and Roma communities of each county. The qualitative part is based on a series of focus groups and interviews with RHSP beneficiaries and stakeholders.

Key messages

- Good practice for facilitating the access to medical studies for ethnic Roma in Eastern and South-Eastern Europe

Public health and wealth

Aino Kiis

A Kiis
Institute of Social Work, Tallinn University, Tallinn, Estonia
Contact: aino.kiis@tlu.ee

Public health is one of the principal factors in providing welfare and wealth to people and the society.

The relationships between the health, wealth and welfare of European Union countries were established based on the results of the World Happiness Report (2012–2014, average), which were obtained using six indicators: (a) gross domestic product (at purchasing power parity) per capita, b) social support, (c) healthy life expectancy at birth, (d) freedom to make life choices, (e) generosity; (f) perception of corruption. The rest of the statistical factors (accessibility, quality and funding of health services, etc.) are also from the same time period (2012-2014). The relationships were established via linear regression analysis.

Results

The main factors associated with public health and the emotional welfare of the society are (1) the quality of health services, (2) the accessibility of health services and (3) health expenditure per capita.

The results indicate that the countries with lower health expenditure per capita should increase the funding of health services. This would increase the productivity of people and prolong their stay in the labour market or enable people unable to work due to health issues to enter or return to the labour market. Also, consequently, this would reduce the percentage of people living in poverty and enhance social integration.

Key message

- Countries can create and increase the wealth of the society by investing in public health and the health and emotional welfare of the people

Burden, costs and prevention measures for communicable diseases among inmates in Europe

Marco Testa

M Testa[1,2], C Dieteren[1,3], L Tavoschi[1], P Lopalco[1]
[1]European Centre for Disease Prevention and Control (ECDC), Stockholm, Sweden
[2]Department of Public Health, University of Turin, Turin, Italy
[3]Department of Earth and Life science, VU University of Amsterdam, Amsterdam, The Netherlands
Contact: m.testa@unito.it

Background

The high risk of disease transmission in correctional settings is recognised as a major issue for inmates health and as a source of risk of spread in the community. This study aims to scope the available evidence on the burden of communicable diseases, preventive measures and costs in prison settings and to identify existing knowledge gaps in order to prioritise and target future research on prison and health in Europe.

Methods

An evidence mapping matrix, based on a literature search, was developed matching seven macro groups of communicable diseases with three parameters of interest: burden, prevention methods and costs. A survey, aligned with the evidence mapping matrix, was distributed to ECDC EU/EEA Member States focal points to elicit experts' opinions.

Results

3799 articles in Pubmed and 4337 articles in Embase were included in the matrix. HIV, TB, and HCV are the three most studied diseases and the highest amount of records for disease groups are for Sexual Transmitted Diseases (STIs) and Blood Borne Diseases (BBDs). The burden of diseases accounted for the highest amount of articles followed by the prevention interventions and costs. STIs, BBDs and respiratory diseases are considered as having the highest burden and costs by the 14 responders to the survey. Some responders highlighted prevention measures for Vaccines Preventable Diseases (VPDs) as an area which could be strengthened underlining a gap between the existing knowledge and perceived needs.

Conclusions

The study suggests that STIs and BBDs are the most relevant disease groups in prison context; in fact when compared with the other groups, they show a higher number of records and are considered more important by experts' opinion for all analysed parameters. Further research might be needed on cost effectiveness and prevention measures in prison settings, e.g. for VPDs. The approach used in the study proved valuable and could be used to further explore other public health issues.

Key messages

- Sexual Transmitted Diseases (STIs) and Blood Borne Diseases (BBDs) are the most relevant disease groups in prison settings
- Further studies on VPDs cost effectiveness and prevention measures in prison context are needed

The Needle Exchange Program in Portugal – The social health gains

Joana Cima

J Cima[1], A Almeida[1,2]
[1]FEP-UP, School of Economics and Management, University of Porto; Porto, Portugal
[2]CEF.UP, Research Center in Economics and Finance, University of Porto; Porto, Portugal
Contact: joana.cima@gmail.com

The Needle Exchange Program (PTS) in Portugal is a public health program aimed at reducing infections among drug users by minimizing the risk of exposure to infection. This program exists in Portugal since 1993 and in 2015 the program was revised, with the extension of the participation of pharmacies, which was expected to increase the effectiveness of the program, given their greater proximity to the addicted population.

The aim of this study is to determine the characteristics of the population with HIV/AIDS that better explain the occurrence of new cases (incidence) and to evaluate the effectiveness of PTS in pharmacies in terms of social health gains.

Using a Poisson count model, we intend to study which variables explain the incidence of HIV/AIDS. For this goal are considered as explanatory variables characteristics related to individuals (gender, age group, stage of the disease, percentage of users drug injection), related to geographical location and pharmacies (ratio of needles exchanged in pharmacies and the number of pharmacies participating in the program).

In this sense different scenarios in terms of pharmacies participation are simulated to determine the optimal involvement point with the purpose of giving lines of future policies that aim a reduction in the incidence of the disease.

Since HIV is considered one of world most serious health problems that affect approximately 35 million people, this work can be applied in other countries that seek a reduction in the incidence of the disease.

Results will be presented at the conference.

Key messags

- In estimating the participation level of the pharmacies in PTS the work can be used in other countries that seek a reduction in the incidence, once HIV is recognized as a global health public problem

The Romanian Population Health State Analysis near Kosloduy NPP, Bulgaria

Daniela Mossang

E Antonescu[1], E Dadulescu[2], D Mossang[2], I Sorop[2], L Prunariu[3], C Pera[4], B Ciuvat[5]
[1]Lucian Blaga University Sibiu, Romania
[2]Laboratory for the Hygiene of Radiations, Public Health Authority of Dolj County, Romania
[3]Public Health Authority of Dolj County, Romania
[4]County Emergency Hospital Resita, Romania
[5]Emergency Hospital. Filantropia Craiova, Romania
Contact: danamossang@gmail.com

Background

The aim of this study is highlighting the possible effects of the long term exposure to small doses of radiations, bringing arguments for health strategies, and last but not least, offering some answers to the press and population's questions.

The Kosloduy Nuclear Power Plant is located on the territory of another state which has always created suspicions and discussions.

When the plant works normally, there are no public health problems for the residents in the neighbourhood.

Methods

The study was carried out between 2009–2014, by monitoring the environment factors correlated with the evolution of the population health state in the Bechet area at 30 km away from the plant, compared to the same state in Craiova, a city situated some 60 km away.

There have been followed the evolution of congenial malformations, the frequency of malignant tumours, and leukemias, as well as the specific mortality due to cancer.

Results

There has been noted an increase in the number of malignant tumours in the Bechet area every year, but under the values registered in Craiova. At the same time, the population suffered a process of aging, the youngsters between one and fourteen representing only 14.7%, while those over 45 represent 48.9%. Finally, we couldn't notice an artificial radioactive pollution due to the plant, the obtained values being comparable both between the two lots and from one year to another.

Conclusions

We can state that there can be made no causal connection between the impact of the nuclear plant over the environment and the population health state in the region ($p < 0.001$).

There haven't been noted significant differences of incidence and trend between the two areas regarding the congenial malformations, malignant tumours and cancer deceases ($p < 0.001$).

Key messages

- We couldn't find conclusive proofs that the NPP affects the population health state
- The increase in the number of cancers and general mortality is mainly justified by the aging process of the population

Proposing access to urban green spaces as an indicator of health inequalities among children

Matilda Annerstedt

N Kabisch[1], D Haase[1], M Annerstedt van den Bosch[2]
[1]Geography Department, Humboldt-Universität zu Berlin, Berlin, Germany
[2]Department of Work Science, Business Economics and Environmental Psychology, Swedish University of Agricultural Sciences, Alnarp, Sweden
Contact: matilda.van.den.bosch@slu.se

Background

Relation between social and environmental determinants of health and increasing health inequities are major public health challenges. Previous studies have demonstrated positive health effects, such as increased physical activity and reduced health inequities, from urban green spaces. This study explores the relevance of including access to green spaces in intra-urban health inequality tools, with a particular focus on children. From a life course perspective early years are critical for a healthy development and interventions directed towards inequalities should be promoted.

Methods

We used existing data on health and socioeconomic indicators from a survey of children aged 6–8 years and GIS-data to assess a possible relation to green space access, distributed per sub-districts of Berlin. Data were. We explored co-linearity between health and socioeconomic indicators and green space accessibility and used factor analyses for determining a minimal set of indicators for inclusion in a hierarchical cluster analysis to characterise the sub-districts.

Results

Indicators used for the cluster analysis included obesity, language deficits, vaccination, population density, and share of green spaces. Sub-districts with high share of obesity and poor social status contained lower shares of green spaces. These areas had high population density, high shares of immigrants and unemployed. Vaccination prevalence showed an inverse pattern with comparatively low vaccination rates in high quality, less deprived areas.

Discussion: This study suggests a relationship between area level of green spaces and health determinants, including social indicators. The results indicate a spatial intra-urban pattern of health inequalities among children. Although not controlled for selection bias this should spur further examination of including environmental indicators in health inequality tools.

Key messages

- Environmental data may serve as health inequity indicators and should be considered among other social health determinants
- Survey data from Berlin demonstrated a spatial intra-urban pattern of health inequalities among children

Viewpoints and attitute to health of active age people in Bulgaria

Stela Georgieva

S Georgieva, S Aleksandrova-Yankulovska, M Kamburova
Department of Public Health Sciencies, Medical University of Pleven, Bulgaria
Contact: georgieva_sl@yahoo.com

Background

Health is an important resource for personal and social development and for work productivity. Process of population aging makes the health state of active people increasingly relevant issue. According to the Health promotion concept, individuals and communities, supported by the Government, have great potential for public health improvement if they realize the nature and determinants of health.

Aim

The aim of the study is to observe working people's understanding and attitude to health as a complex and multidimensional concept, and ways of its improvement.

Materials and Methods

Data have been collected in the year 2014 by direct groups self-administered questionnaire during the annual trainings of workers on health and safety at work. Trainings are obligatory according to the Bulgarian legislation and are organized by Occupational Health Services. Generally 120 employee in three focus groups were included in the study representing different Occupational Health Services.

Results

About three quarters of the respondents perceive health as an absence of disease and they pay attention to their health only when health problem appears. People like the idea for mental and social well-being but they don't associate it with health. Although the majority of them understand the harm of unhealthy life style and recognize the individual responsibility to health, they consider legislation and medical measures as more effective for public health improvement than health education activities. According to 62,6% of the study subjects, prophylactic check-ups are useful to reduce chronic diseases in the population. At the same time they don't regularly undergo such. For 58% of people main health indicator is life expectancy without taking into account the quality of life.

Conclusions

Biomedical concept of health is still the most popular in the Bulgarian society. There is a necessity to increase the attention to health promotion concept and positive health.

Key messages

- Health status of active population is an issue of present interest. Individuals and communities, supported by the government, have great potential for improvement of health and work productivity
- The effectiveness of efforts for public health improvement depends on people's understanding and attitude to human health as a complex and multidimensional concept

Possible Health Issues of a Health Strategy 2.0

Anne Wiebke Ohlrogge

AW Ohlrogge, H Brand
Department of International Health, CAPHRI School of Public Health and Primary Care, Faculty of Health, Medicine and Life Sciences, Maastricht University, The Netherlands
Contact: annewiebke.ohlrogge@web.de

Issue

Every institution needs a sound strategy to reach its goals. A strategy helps to identify critical factors and to prioritize necessary actions. This is also the case for the European Commission (EC) and the Directorate General for Health and Food Safety (DG Sante).

Description of the Problem: The first Health Strategy (HS) "Together for Health" ran out in 2013 without a follow-up HS. It was argued that other strategies, like Europe 2020, took over the role of the HS. However, a new Commission and Commissioner were elected, laying emphasis on new aspects; and several years past since the implementation, giving room for the occurrence of new health issues. In this context a comparative policy document analysis was conducted to answer following Research Questions:

Did the HS fulfil the criteria of a strategy?

Is the EU still facing the same health issues?

Have new health challenges emerged since its implementation?

Health 2020 of the WHO was used as main reference paper. Furthermore, strategies, such as Europe 2020, reports, such as the HS midterm evaluation and from Friends of Europe, EU health programmes and further health policy papers, as well as scientific articles have been analysed.

Results

The HS fulfils the main elements of a strategy. The 4 Principles (shared health values, health is the greatest wealth, HiAP & global health) and 3 Objectives (ageing Europe, health threats and health systems) are verified by the reference material and should be kept. However, when going more into detail, it showed that none of the health issues has been solved until now and some issues (e.g. vaccination, big data, migration & the consequences of the economic crisis), which gained importance due to recent events, should be added to complement the old HS.

Lessons:

Health is taken into account in EC decisions, however, it often plays an ancillary role. An updated HS 2.0 could help improve the EU citizens' health by defining priorities of action for the EC.

Key messages

- The EC has measures and knowledge to improve the current situation and to make health the asset it can be
- The current HS can be transferred to a HS 2.0 with relatively minor effort

Health and health care access inequalities in different Bulgarian regions

Jasmine Caradja

J Caradja, A Ivanova
Roma program, Open Society Institute - Sofia, Bulgaria
Contact: jpavlova@abv.bg

Authors study the reasons for the great health and health care access inequalities in different Bulgarian regions, and try to suggest some measures for resolving these important problems. These approaches could be helpful for countries with similar problems.

Twenty five years ago in the Republic of Bulgaria has started a transition from centralized planning to market oriented economy and more than eight years is a full member of the European Union.

The consequences of these changes have substantial economic and social dimensions.

During these 25 years the society achieved economic inequalities of 10% rich people, 80 % poor people and 10% middle class. The health system passed through fundamental changes in its organization, management and financing. Inequalities are evident not only in population health status, but also in the access and use of health care services. Poor and low educated persons, despite having higher rates of illness, disease and death, often have difficulties in locating appropriate specialist and preventive health services, they use these services less, and for certain goods and services they may be required to pay a proportionately higher share to their income.

The distribution of the Gross Domestic Product (total and per capita) and the population (by number and age groups) is unequal in the six regions of Bulgaria. In the study the factors regional development, ethnic and demographic differences are analyzed and evaluated in detail.

Bad economic and health status are bound into a vicious circle where unemployed people remain out of the health aid scope. As a result poor people's health limits their access to the labor market, increases their poverty and social isolation. The limited financial resource for the health system has to be allocated and spent more effectively. The Bulgarian managers have to improve the health literacy of the population and to transform the curative oriented health care to health promotion and prevention.

Key messages

- Regional, ethnic and age inequalities in health and health care access can be overcome
- Improving the health literacy of the population and transforming the curative oriented health care to health promotion and prevention could be effective approaches

Seeking to Optimise Children's Primary Health Care – A European Study

Mitch Blair

M Blair, M Rigby
Section of Paediatrics, Imperial College, London, UK
Contact: m.blair@imperial.ac.uk

Issue

Children are a key societal and public health group, and comprise the future European population. Thus their optimal health matters. Across Europe there are distinctly different patterns of primary health care provision for children, based on a broad divide between generalist and paediatrician models, and with different patterns of preventive services, school health services, and adolescent direct access.

Problem

Beliefs in the supremacy of each model are strong, and intuitively argued, but there is little effective study or outcomes evidence. Yet if one model is more effective than the other, this means that millions of European children are receiving sub-optimal care and thus having their long-term health compromised. The same applies to school health and adolescent services.

Results

A large-scale integrated European study on Models of Child Health Appraised (MOCHA) has been funded under the EU's Horizon 2020 and commenced start-up in June, and will be launched formally in the European Parliament on 21 October 2015. The study has a core research team from major universities, participation by the main European paediatric bodies, and a scientific agent in each of 30 countries.

It will

- Identify in detail the models of child primary care (including emergency care) in 30 European countries
- Study links with secondary care, social care and delivery of complex care
- Determine quality and outcome measures
- Analyse existing large data sets to determine outcomes
- Review equity
- Review the role of electronic health records in child health
- Analyse economic and workforce issues
- Advocate validated optimal future models of children's primary care

Lessons

Children are Europe's future. Their health is important, and models of provision should not be left to the chances of history. MOCHA will seek systematically to determine the best models, and to promote their adoption through necessary policy change.

Key messages

- Models of children's primary health care are currently very varied across Europe, based largely on historic tradition rather than evidence of outcomes
- The MOCHA Project will systematically analyse models of child primary care, school health, adolescent services, and delivery of complex care, based on quality and outcomes study

DECIPHER PCP - an innovative cross-border procurement to increase care delivery efficiency

Rossana Alessandrello

A Sachinopoulou[1], S Ikävalko[2], J Lähteenmäki[1], R Alessandrello[3]
[1]Digital Health, VTT, Finland),
[2]Nordic Healthcare Group, Helsinki, Finland
[3]AQuAS - Agency for Health Quality and Assessment of Catalonia, Barcelona, Spain
Contact: ralessandrello@gencat.cat

DECIPHER (European Commission FP7 co-funded project) procures the research and development of novel solutions for secure cross-border access to personal health records and efficient and safe medical care for mobile patients with chronic diseases or unplanned care episodes.

Interoperability and privacy challenges of cross-border care are tackled. Understanding of the Pre- Commercial Procurement (PCP) instrument and new knowledge for improving future European PCPs is obtained. Key aspects, such as the business case formulation, promote new concepts for procuring authorities and their operations.

Following needs assessment, market consultations, a call for bids and evaluation, lessons learned as seen by the participating experts, are:

- The need of the procurers and the adequacy of the solution to the existing service system should be assessed in advance. Procuring organizations' drivers and expected benefits also relate to a learning experience about PCP and mHealth.
- The business case is a necessary tool in a health PCP, as it reveals and defines possible pathways and opportunities. All relevant actors should be involved in the business case design process.
- A common understanding of the existing healthcare ICT infrastructure in place in each procuring organization is important in order to achieve interoperable services.
- PCP should be seen and used as an instrument for flexible, simplified and smooth adoption of novel services which are in the interest of both the demand and the supply side.
- For suppliers cross-border activity may appear as complicated, but pooling of demand can drive technological standardization and lead to solutions for national differences. Main challenges in cross-border PCP can be found in legal, service adoptability, and interoperability issues.

PCP process at a European level can be quite useful especially for cross border services. It can create standardization, open markets and it should be driven by real needs.

Key messages

- DECIPHER procures cross-border mHealth solutions for patients with chronic diseases
- Early findings show that PCP process at a European level could be useful especially for cross border services. It can create standardization, open markets but it should be driven by real needs

Non-communicable diseases and medication intake in institutionalized elderly

Andrejus Cernovas

R Stukas, G Surkiene, A Cernovas, V Alekna
Faculty of Medicine of Vilnius University, Vilnius, Lithuania
Contact: andrejus.cernovas@gmail.com

Background

Europe ageing population is expected to grow rapidly over the next 15 years, raising a number of new public health challenges. The aim of this study was to investigate prevalence of non-communicable diseases and medication use in institutionalized elderly of Vilnius municipality.

Methods

This cross-sectional study was conducted on nursing homes aged 65 years and older. Research data was collected by questionnaire designed for this particular study. The interview questionnaire included sociodemographic (age, education, occupational and marital status) characteristics, health status and medication use in the past 12 months. Face-to-face interviews were led by qualified public health. Statistical analysis was performed by using SPSS 18 version for Windows.

Results

We interviewed 108 elderly persons - 41 (38%) men and 67 (62%) women. The mean age of the sample was 83.1 ± 7.9 years. 54 participants (50%) had arterial hypertension, 44 (40.7%) - spine disorders, 29 (26.9%) - rheumatoid arthritis, 41 (38%) - heart failure, 25 (23.1%) - stroke, 25 (23.1%) - osteoporosis, 21 (19.4%) - depression. It was found that 81 (75%) participant had one to five chronic diseases. Only 12 (11.1%) of participants had no past history of diseases. Women were more likely than men to have arterial hypertension (OR = 2.75; 95% CI 1.22–6.20; p = 0.013), rheumatoid arthritis (OR = 2.96; 95% CI 1.09–8.08; p = 0.03), osteoporosis (OR = 6.03; 95% CI 1.67–21.74; p = 0.003). Women were more likely than men to take antihypertensive medication (OR = 4.51; 95% CI 1.86–10.94; p = 0.001) and medication related to cardiovascular disease (OR = 2.56; 95% CI 1.13–5.81; p = 0.02).

Conclusions

Most participants living in the nursing homes had one to five chronic diseases. Elderly women had greater risk than men for hypertension, osteoporosis, rheumatoid arthritis as well as medication use acting on cardiovascular system. The arterial hypertension was the most frequent disorder among elderly in nursing homes in Vilnius.

Key messages

- The results of our study confirm that arterial hypertension is serious health problem in nursing homes in Vilnius which should strongly monitored to prevent long-term complications
- Institutionalized elderly are vulnerable group whom should be given more attention to promoting healthy and active aging from local public health institutions

Air pollution and energy as health issues – required steps for Serbia

Marija Jevtic

M Jevtic[1,2], *V Matkovic Puljic*[3]
[1]University of Novi Sad - Medical Faculty, Novi Sad, Serbia
[2]Institute of Public Health of Vojvodina, Serbia
[3]Health & Environment Alliance (HEAL), Serbia
Contact: marija.jevtic@uns.ac.rs

Air pollution is one of the top ten risk factors for health and has been classified as the leading environmental cause of cancer. Cardiovascular and malignant diseases caused about 70% of all deaths in 2013 in Serbia. On average 5200 people fall ill of lung and bronchus cancer and 4600 die of it annually. Lung and bronchus cancers are leading malignant sites in illness (21.3%) and in deaths (31.3%) among men, and increase of lung cancer illness (27.4%) has been recorded. For public health specialists in Serbia, the issue of air quality is an old one, but never appreciated enough. Considering different options for energy production, distribution and utilization, air pollution from such processes, should be brought into focus as part of strategic approach to secure appropriate amount energy for the region. Having in mind that energy security is important part of population well-being, a proper decisions in energy sector strategic approach should be made to take into account the following medical evidences as well. According to WHO data it is estimated that approximately 1–3% of cardiopulmonary and 2–5% of lung cancer deaths are attributable to PM. Medical specialists are pointing to the hazardous effects of pollution originating from coal power plants and insist to prepare the innovative national energy strategy which must take into consideration the health aspects. They request to: develop a national emission reduction plan for pollutants in the course of power production; introduce the highest standards of pollution control for the existing coal power plants; include the health professionals in the development of the energy policy. Regional and European dimension of the air pollution issue is well recognized by the regulators in EU. Since some countries have reached decisions on construction of new coal power plants, health sector should take action. Long-term effects on the population health in Serbia must be taken into account when developing the energy policies.

Key messages

- National energy strategy and policies must take into consideration the health aspect (short-term and long-term) of air pollution emitted by energy units
- Further steps on the national level in Serbia should be considered and long-term effects on the population health must be taken into account in the course of development the appropriate strategy

Evaluating the European Union Committee of Experts on Rare Diseases Joint Action

Verónica Gómez

V Gómez, A Machado, P Rama, C Furtado, D David, N Miranda, MJ Branco, G Isidro
National Institute of Health Doutor Ricardo Jorge, Lisbon, Portugal
Contact: veronica.gomez@insa.min-saude.pt

Background

The EUCERD Joint Action (EJA) aims to assist the European Commission in formulating and implementing activities in the field of rare diseases (RD), to foster exchanges of relevant experience, policies and practices between the Member States and stakeholders.

Within the EJA, an evaluation work package (WP) was planned in order to monitor its evolution and to evaluate EJA impact in the RD field.

Methods

We used a Logic Model to establish the evaluation plan. This plan was developed with the involvement of all partners in a participative approach and included the definition of process, output and outcome indicators.

For monitoring, specific tools were design to assess the activities and deliverables implementation. Web-based structured questionnaires were created to evaluate EJA achievements as well as the workshops impact developed within WP's. The final evaluation will involve all partners and address stakeholder's perception directly of the impact of the JA including an external reviewer panel audit.

Results

The EJA started March 2012 and will end August 2015 and to date three monitoring moments took place. 59 milestones and 38 deliverables were planned. The majority of them (86.4% milestones and 94.7% deliverables) were completed on time. One activity was suspended due to EC directives.

Regarding the workshops, the main perception of the participants is that this method is useful and with practical applicability. Concerning the use of the contents, 39.9%, of the individuals stated that they will use them in three months, 28.1% in 6 months 21.1% in a year.

Conclusions

Process monitoring indicates that the project is on schedule or even ahead of it. In relation to outcome indicators the evaluation is still ongoing. One limitation of this evaluation is that the real impact of EJA will not be measurable during the project duration. Instead, proxies will be used to give an approximate measure.

Key messages

- The involvement of all the partners in the early stages of the monitoring plan, using a participatory methodology, is essential for the success of evaluation process
- A multidimensional approach that includes process monitoring but also partners and other stakeholders' perception should be implemented to accomplish a comprehensive evaluation

Secondary school completion: Gender differences and the role of childhood family structure

Arnhild Myhr

A Myhr[1], *T Halvorsen*[2], *M Lillefjell*[1,3,4]
[1]Department of Social Work and Health Science, Norwegian University of Science and Technology, Trondheim, Norway
[2]SINTEF Technology and Society, Department of Health Research, Trondheim, Norway
[3]Department of Occupational Therapy, Faculty of Health Education and Social Work, Sør-Trøndelag University College, Trondheim, Norway
[4]Research Centre for Health Promotion, Trondheim, Norway
Contact: arnhild.myhr@frisknett.no

Background

Completions of upper secondary education strongly influence future health and health behaviours and thus represent a crucial insight for the prevention of future inequalities in health. The present study investigates the effects of family structure and socio-economic resources during childhood on school completion among young males and females.

Methods

We extracted a nationally representative sample of 30% of all Norwegians ($N = 187.770$) aged 20–30 in 2010 from Statistic Norway's event database. Multilevel models, which incorporate both childhood family structure and socioeconomic factors, were applied to investigate whether the individual propensity of school completion by the age of 20 was dependent of the family of origin. Separate analyses were performed for males and females in order to identify possible gender differences.

Results

Females complete secondary education significantly more often than males (69 % and 56 %, respectively). The clustering of completion in families was clearly evident and similar in both females and males, showing that 25–27 % of the unexplained variance could be attributed to families after adjusting for individual and childhood family conditions. Both socioeconomic factors and family structure during childhood are important explanatory variables. Adolescents living with both parents have the highest completion rate. For both females and males the odds are significantly reduced for those living with only a mother (OR = 0.57/OR = 0.58), only a father (OR = 0.64/OR = 0.58) or no parents (OR = 0.50/OR = 0.53).

Conclusions

The likelihood of secondary school completion depends on family conditions; however, the impact of family structure differs between the genders. Among females, the risk of non-completion was actually higher for those living with only their mother compared to those with only their father. On the other hand, for males the negative effect of parental divorce was about the same, regardless of which parent had custody. Further research is needed to understand the family mechanisms that cause the outcomes found in this study, particularly in order to understand how children experience parental divorce and how to support them in successfully completing their education.

Key messages

- Family structure and socioeconomic factors during childhood is crucial for the completion of upper secondary education
- The impact of the family structure differs between the genders

Participants' recruitment: preliminary results of Portuguese National Health Examination Survey

Sonia Namorado

S Namorado[1], *I Kislaya*[1], *V Gaio*[1], *AJ Santos*[1], *AP Gil*[1], *M Barreto*[1], *J Santos*[1], *H Lyshol*[2], *B Nunes*[1], *C Matias Dias*[1]
[1]Department of Epidemiology, National Health Institute Doutor Ricardo Jorge, Lisbon, Portugal
[2]Norwegian Institute of Public Health, Oslo, Norway
Contact: sonia.namorado@insa.min-saude.pt

Background

Recruitment of participants in health surveys is recognised as the most challenging step of fieldwork. This work presents preliminary results of recruitment in the first Portuguese National Health Examination Survey (INSEF) comparing participants and non participants.

Methods

INSEF is a cross-sectional prevalence study targeting 4200 individuals aged 25–74 years, living in Portugal for more than 12 months, non-institutionalized and able to follow an interview in Portuguese. Fieldwork started in February 2015 and to date 9/49 examination sites are completed.

Selected individuals received an invitation letter and later were contacted by phone to schedule the appointment. Individuals were then classified in participants, refusals and of unknown eligibility. Participation rates were calculated according to European Health Examination Survey guidelines. Reasons for refusals were recorded and non participant's characteristics analysed. Chi square and Fisher exact tests were used to compare participants and non participants regarding age, sex, education level, marital status, smoking, use of medication and of healthcare services.

Results

1467 of the 2161 selected individuals were successfully contacted. Overall participation rate was 42%(n = 882), ranging between 27–54% by examination site.

49% of the 512 refusals accepted to respond to a short questionnaire for non participants. The main reasons for non participation were lack of time (27.6%) and professional reasons (22.4%). No significant differences were found for the majority of the analysed variables. Participants were found to be more frequently users of medication ($p < 0.001$) and to have between 45–54 years old ($p = 0.023$).

Conclusions

To date the planed participation rate of 40% was successfully achieved at national level. Results obtained showed the need to implement strategies to engage in participation specific target groups. To mitigate selection bias adjustment of sampling weights for non response should be done.

Key messages

- Adequate strategies to improve response rate and minimize dropouts are essential to avoid recruitment bias
- A strict control of the contact, cooperation and participation rates in each examination site is essential for the success of the overall recruitment process

Y.C. Poster Displays: All inclusive public health

The Physical activity behaviour of vulnerable diabetic migrants: the role of juridical status

Giulia Silvestrini

G Silvestrini[1], *V Pettinicchio*[2], *S Geraci*[3], *E Di Meco*[3], *B Federico*[4], *S Bruno*[1], *M Liddo*[3], *F Arrivi*[2,3], *E Franco*[5], *W Ricciardi*[1], *G Damiani*[1]
[1]Department of Public Health, Catholic University of Sacred Heart, Rome, Italy
[2]Specialization School for Hygiene and Preventive medicine- University of Roma ''Tor Vergata'', Italy
[3]Caritas Medical Area, Rome, Italy
[4]Department of Human Sciences, Society and Health, University of Cassino and Southern Lazio, Italy
[5]Department of Biomedicine and Prevention - University 'Tor Vergata', Rome, Italy
Contact: silvestrinigiulia@gmail.com

Background

About 20% of the risk for type 2 diabetes (DM) is attributable to low level of physical activity (PA). There is evidence on socioeconomic disparities in PA. Despite the increase in incidence and prevalence of DM in migrants there is a lack of information about their attention to PA. Our aim was to assess level of PA in diabetic migrants and to study the factors involved in the PA choice.

Methods

A survey among patients followed by an outpatient ''open access'' clinic for deprived urban population in Rome was conducted. Socio demographic data and information on awareness of disease, healthcare utilization and lifestyle had been collected through a semi-structured questionnaire administered to all diabetic patients visited the clinic between April and October 2014. Descriptive and Univariable statistics ($P < .05$) were used to assess the association between socio-demographics characteristics and the level of PA.

Results

A total of 67 diabetic patients with a mean age of 50.5(SD 9.9) were included in the study. Among them, 44.8%(30) came from Indian-Subcontinent and 36.4%(24) were undocumented. Only one fifth of them knew about DM as a chronic condition. For 37.3% (25) lifestyle is the main cause for developing DM and 67.2% (45) had knowledge about long-term complications.

The majority of patients (80.6%) reported a moderate intensity PA. According to our preliminary results, the level of PA is higher among extra EU-documented EU migrants ($p < 0.05$) compared with undocumented ones. No association was detected between PA and having knowledge about complications, educational level and time from the diagnosis.

Conclusion

The promotion of PA is one of the component of public health work, according to our finding, a particular attention to vulnerable groups is needed. This preliminary results enforce the importance to analyse the impact of all polices on migrant health in order to identify comprehensive strategies to promote the adoption of healthy lifestyle.

Key messages

- This is a contribution to the international scientific debate on disparities and chronic diseases among migrant vulnerable population
- It provides a methodology useful for planning and organizing services for migrants with diabetes

Online Video Resource on Health and Human Rights

Mary Joyce

B Davidson, M Joyce, J Kennedy
Public Health Program, Open Society Foundations, New York, USA; Public Health Program, Open Society Foundations, Budapest, Hungary
Public Health Program, Open Society Foundations, New York, USA
Contact: marycjoyce@gmail.com

Over the past five years the Open Society Public Health Program has funded a range of grantees in Europe and around the world to produce short documentary and advocacy videos. These videos cover a range of issues related to human rights in the context of healthcare, specifically with regard to marginalized minorities, such as the Roma, people with intellectual disabilities, people with HIV or Hepatitis C, drug users and sex workers. Many of these videos make use of personal stories of affected individuals in order to illustrate larger issues or problems. These videos have been collected and placed together, along with accompanying explanatory material, in an online resource available for teachers of Public Health to use in the classroom. This session will present the online resource and illustrate ways in which it can be used.

Key messages

- An online resource of videos about health and human rights is available to teachers
- Videos telling personal stories are a powerful way of communicating about health and rights

Report on the migrants' vaccinations in the ASL RMF

Maria Teresa Sinopoli

MT Sinopoli[1], M Benigni[1], F Trani[1], MC Serra[1], C Fusillo[1], L Di Marzio[1], C Marchetti[1], S Rossi[1], E Galliani[2], S Rabbiosi[1], S Sgricia[1]
[1]ASL RM F, Civitavecchia, Roma, Italy
[2]Tor Vergata University, Rome, Italy
Contact: mariateresa.sinopoli@aslrmf.it

Problem

The vaccinations coverage and the access to prevention services in the migrant population are very low.

In the territory of the ASL RMF there is a accommodation centre for asylum seekers (CARA) and several other types of migrant centers. In order to allow their guests to access to vaccinations the ASL RMF staff go regularly on site to perform the immunizations required by vaccination calendars for minors and by the current regulations to the age. Through interviews with parents is studied vaccination status of children and their timeliness. The missing cycles are so completed. Adult are given polio vaccination and the tetanus vaccination post exposure. Are also carried out the pneumococcal and flu vaccination in people with chronic deseases.

Results

Over the years the type of migrants hosted has changed: from a prevalence of households have moved to almost all adult males. From 2009 to april 2015 have been vaccinated 592 persons for a total of 909 immunizations. Until 2013 almost all of the vaccinated were children. Many of them had no vaccination history so received immunizations significantly later than the recommended schedule. Given the high mobility only in 20 children we managed to complete the vaccination cycle.

Only 2 families signed the denial to immunizations for religious reasons. By 2014 have been vaccinated 340 adults and only 46 children. Only 4 adults have refused polio vaccination, because vaccination activity was preceded by a moment of formation with the distribution of multilingual material. Cultural mediators were available.

Lessons

To prevent future development of diseases preventable with vaccinations it is important to obtain hig levels of vaccine coverage in migrants. In view of the low spontaneous access to territorial vaccination services it is essential that the vaccination activities are carried out directly in the centres for migrants and preceded by a piece of information that increase the compliance.

Key messages

- The vaccination coverage in the migrants are low. In the territory of the ASL RM F there are several centers for migrants. Good results were obtained by going on site to vaccine
- The vaccination compliance was increased from information activity, multilingual material and mediators available

Night work and health related quality of lifr: a study on nurses

Agnese Verzuri

A Verzuri[1],V Turchi[2], G Bugnoli[3], N Nante[1,2], AM Gentile[1], MF Severi[2,3], G Messina[1,2]
[1]Post-Graduate School of Public Health, University of Siena, Italy
[2]Department of Molecular and Developmental Medicine, University of Siena, Italy
[3]‘‘Le Scotte’’, Teaching Hospital Siena, Italy
Contact: agneverzuri@gmail.com

Background

The quality of job on the evaluation of influence in the health of workers is important both of medical and social implications.

We studied the health related quality of life (HRQL) in nurses who perform their activity in night shifts.

Methods

A cross-sectional study was conducted between October-November 2014. Nursing who attend night shift in the Siena Teaching Hospital (AOUS) were sampled using EpiInfo software (confidence interval 95 %) and investigated with SF-36 Questionnaire.

Our results were compared with the Italian general population (Apolone, 1997).

A Descriptive analysis were conducted. Wilcoxon test, Pearson coefficient, t-test, Wilcoxon signed-rank test were used for the statistical investigation.

Results

211 questionnaires were analysed. Females were the 71.7%; mean age was 39.2 years (DS 8,7); smokers were 37.8% and 46.2% were commutes.

The time taken to reach the place of work appeard to influence the dimension of General Health (coeff.-0.115714); for every minute spend in travel it has a worsening of 0.156 points of this dimension.

Male gender scored higher compared with the female one in all dimensions of physical and mental health ($p < 0.05$).

Older nurses and the ones with more working years had better score in Physical Pain dimension.

AOUS nurses scored significantly ($p < 0.05$) less compared with the correspondent Italian general population in: Physical Pain, General Health, Vitality, Social Activity and Mental Health. On the contrary, Physical Activity scored higher.

Conclusions

There is a significant relationship between night work and HRQL of nurses.

The health profile of AOUS nurses' ranks below the values of the Italian general population especially in the dimensions related to mental and social functions.

This disadvantage is sufficiently offset by better remuneration for night work?

Key messages

- Male, who live near the work place, elderly and working for the longest time have a better HQRL
- AOUS nurses showed scores particularly low in the scale of social functioning

Oral health-related quality of life among edentulous elders living in retirement home

Dusan Cankovic

M Cankovic[1], D Cankovic[1,2], V Mijatovic Jovanovic[1,3], S Cankovic[1,3]
[1]University of Novi Sad Medical Faculty, Novi Sad, Serbia
[2]Centre for Health Promotion, Institute of Public Health of Vojvodina, Novi Sad, Serbia
[3]Centre of Health Care Analysis, planning and organization Institute of Public Health of Vojvodina, Novi Sad, Serbia
Contact: stravar@mail.ru

Background

During recent years, more attention has been paid to quality of life and its close relation to both overall and oral health. Significant item in the examination of the quality of life is a patient self-assessment. Using the index, which measures the impact of oral health on quality of life, this subjective score got its quantitative display. The aim of this study was to examine the impact of gender, smoking and presence of complete dentures on quality of life among edentulous elders in retirement homes.

Methods

The impact of oral health on quality of life was measured using the short-form Oral Health Impact Profile questionnaire (OHIP-14). Study included 108 edentulous participants of both gender older than 65 years (mean 71 ± 4.40 years), living in retirement homes in Novi Sad. Data concerning their habits and the presence of dentures were collected during the interview and clinical examination in daylight. Smokers (smoking yes) were defined as those who have smoked 100 cigarettes in their lifetime and currently smoke cigarettes every day (daily) or some days (nondaily).

Results

There were 37% smokers and 34.3% of subjects who do not wear any kind of dental prosthesis. Average total OHIP score was 12.60, with a prevalence of 45.4% and an extent of 1.26. Smokers showed significantly higher total OHIP score ($p = 0.023$) and also second, third, fourth and seventh domains of OHIP. Gender and complete denture wearing showed no significant effect on the quality of life among elders. The highest score had following question: have you been self-conscious because your teeth, mouth or dentures, even though one in three patients does not wear prosthesis.

Conclusions

Quality of life of the edentulous elderly is at a low level. Except smoking, gender or denture wearing show no impact on patient's well being in this elderly population. There must be some other oral or systemic factors that contribute to low level of oral health-related quality of life among edentulous elders.

Key messages

- Wearing prostheses as a part of oral health did not have influence on overall quality of life of edentulous elders living in retirement homes
- It is very important to identify factors that have influence on oral health-related quality of life of this vulnerable category

Nutritional status among students of University of Novi Sad - a study

Vladana Stefanovic

V Stefanovic, V Dickov, L Turo, A Marinkov
Institute for Student Health Care Novi Sad, Novi Sad, Serbia
Contact: vladana.s@live.com

Aim

The aim of our study was to find out the current nutritional status among the first and third year students attending the University of Novi Sad wich has as many as 65000 students currently studying. Nutritional status has been identified as an important public health factor contributing to longevity by reducing morbidity and mortality, increasing self-esteem and reducing anxiety and stress, and improving blood pressure and cholesterol levels.

Matherial and Methods

This research was conducted among students of the University of Novi Sad in the period from October 2013 until February 2014. In our prospective study we gathered information by meassuring hight and weight of students and calculating their BMI (body mass index). 550 students have participated in the study, 305 were first year students of which 142 (46.56%) were male and 163 (53.44%) female; and 245 third year students of which 108 (44.08%) male and 137 (55.92) female. Data was analysed with the SPSS statistical package.

Results

Majority of students had optimal weight. As much as 77.6% of first-year students (80% female and 74,8% male) and 76.3% of third year students (80% female and 74,8% male) had a BMI value 18.6–24.9 which indicates optimal weight. BMI <18.5–underweight has been found in 9% of first-year students (15% females and 2.2% males) and 6.3% of third year students (10.3% female and 1% male). BMI value 25–29.9–overweight has been found in 12% of first-year students (5% female and 20,1% male) and 15.4% of third year students (6.6% female and 29.6% male). BMI value 30–40- obese has been found just in 2.2% of first-year male students (1% total) and 2.1% of third year students (0.7% female and 3.8% male). BMI >40-very severely obese has been found only in first-year male students −0.7%

Key Findings

The results of our study show that most of our students have optimal weight. However, there are cases of under-nourishment that need attention. At the same time, there is a need to deal with obesity and overweight in students trough an increase of preventive educational activities in order to prevent the impending epidemic of noncommunicable diseases and provide caring and support for young highly educated people that are our future.

Key messages

- There is a need to deal with obesity and overweight in students trough an increase of preventive educational activities in order to prevent the impending epidemic of noncommunicable diseases
- There is a need to provide caring and support for young highly educated people that are our future

Student's Knowledge and Attitude Towards Direct-To-Consumer Genetic Tests

Luca Giraldi

M Colotto[1], L Giraldi[1], R Pastorino[1], D Arzani[1], E Vayena[2], C Ineichen[2], S Boccia[1]
[1]Section of Hygiene-Institute of Public Health, Faculty of Medicine, Università Cattolica del Sacro Cuore, Rome, Italy
[2]Institute of Biomedical Ethics and history of medicine, University of Zurich, Zurich, Switzerland
Contact: giraldi_luca@libero.it

Aims

This study reports on the attitudes of 179 Italian Medical Students to direct-to-consumer (DTC) genetic test and to participation in research practices.

Methods

Data were collected using a self-completion online questionnaire sent to 380 medical students at the faculty of Medicine of the Università Cattolica del Sacro Cuore in Rome, Italy. Questions pertained issues related to awareness and attitudes towards genetic testing, reactions to hypothetical results, and views about contributing data to scientific research. Descriptive and inferential statistics were used for the analysis.

Results

The response rate was 47.1%. None of the students had ever been subjected to a DTC genetic test. Less than 50% of students were aware of DTC genetic test. Seventy-four percent of the sample were interested in undergoing DTC genetic test, and the main reasons were being aware on genetic predisposition to diseases or characteristic, and the potential for inherited genetic predisposition to a disease. Among those who were not willing to undergo a genetic test (26.3% of the sample), the main reason was the lack of confidence in the meaning of the results, followed closely by the fear that the results could be of concern. In the hypothetical situations of an increased disease risk after undergoing DTC genetic testing, respondents would take actions to reduce that risk, while in the opposite scenario they would feel unaffected because of the probabilistic nature of the test. There was a significant association between being female and the interest in participating in a genetic study conducted in a clinic. Furthermore, this interest was also associated to the willingness to making data available for research.

Conclusions

We reported a good level of awareness about DTC genetic test and a high interest in undergoing DTC genetic test in our medical students. Nevertheless, opinions and reactions on DTC genetic tests are strongly dependent by the hypothetical good or bad result that the test could provide and by the context whereby a genetic test could be performed. Therefore respondents seem to be exposed to the risk of psychological harms, and a strong regulation regarding their use is required.

Key message

- Interest in DTC tests may be the first step to spread knowledge among the doctors of the future years and to make them aware of the opportunities and the risks related to their use

Technology Dependency of University Students?

Burcu Kucuk Bicer

S Uner[1], B Kucuk Bicer[1], TM Piskin[2]

[1]Public Health Department, Hacettepe University Institute of Public Health, Ankara, Turkey

[2]Public Health Department, Hacettepe University Faculty of Medicine, Ankara, Turkey

Contact: drburcubicer@gmail.com

Background

Technology dependent education system plays an important role at students' technologic device use. This study aimed to show the increase of technology dependency at university students.

Methods

The study was planned as a longitudinal study consists of two descriptive data collecting periods. Medical and engineering faculty students who were thought to use technology more were chosen as the universe. There were 1800 students at two faculties at each data collecting period. Participation was 867 (48.2%) in first and 643 (35.7%) voluntary students in second data collecting period. Data was collected by a questionnaire including; sociodemographic characteristics and technology dependency (TD) situation. TD was analysed by using mobile phone deperndency (MPD) and Online Cognition Scale (OCS). Descriptive statistics and linear regression was used to analyze data and ethical consent was taken.

Results

Student's mean age was 20.4 (1.7), 56.1% were male and 79.9% were from medicine. Moderate TD was 44.2% at first and 53.3% at second data collecting period ($p = 0.001$). High TD was 39.1% at first and 30.6% at second data collecting period ($p = 0.001$). Lower mother education ($\beta = 0.038$;$p = 0.057$), lower father education ($\beta = -0.067$;$p = 0.008$), lower school success ($\beta = 0.039$;$p = 0.095$), high daily mobile phone usage ($\beta = 0.003$;$p < 0.001$) were related to high technology dependency.

Conclusions

The results indicate that there's an increase at moderate TD between two data collecting periods, moreover one third of the students are severe technology dependent. Its important to improve public health prevention strategies for helping young adults to set limits for technology usage. This group is thought to be healthy, however the gaps occurred at this time would be non-sealable.

Key messages

- University students use technology such as mobile phone and internet without any awareness of their dangers
- As public health professionalls we have to create awareness of right technology use at this age group

Migrant health strategies in Scandinavia - tackling health inequalities?

Claire Mock-Muñoz De Luna

C Mock-Muñoz de Luna, A Krasnik

Department of Public Health, Danish research centre for migration, ethnicity and health, University of Copenhagen, Copenhagen, Denmark

Contact: cllu@sund.ku.dk

Background

A European study including the Scandinavian countries (Denmark, Norway and Sweden) found that the more exclusionist the integration model, the poorer immigrants' self-reported health and the greater health disparities between immigrants and non-immigrants. Some disparities disappeared when adjusted for socio-economic factors. However, comparisons on a European level are methodologically challenging, as f.e. data availability and contextual factors vary greatly. Scandinavia represents a unique and near ideal experimental situation: similar migration patterns, historical and cultural similarities, and extensive and comparable population data. Integration policies differ however, with Norway and Sweden's multicultural model on one extreme, and Denmark's exclusionist on the other. This study examines whether national migrant health strategies or their absence, may represent one of the pathways through which different integration policy models are linked to different health outcomes for migrants.

Methods

The study is based on a review of policy documents related to national and/or regional migrant health strategies. Search was conducted in English, Swedish, Danish and Norwegian.

Results

Norway has a national level migrant health strategy, while Denmark and Sweden tackle migrant health at the regional level. Despite similar migrant health strategies, research shows self-reported health among migrants in Denmark and Sweden differs significantly, suggesting the impact of other policy areas on migrant health outcomes.

Conclusions

The findings suggest that the pathways to health and health disparities should be seen in a broader policy context, taking into account socio-economic policy areas impacting on the social determinants of health.

Key messages

- In Denmark and Sweden integration models and health outcomes in migrants differ, yet migrant health strategies are similar

- Socio-economic policy areas may play a role in shaping health outcomes and disparities

Differences in overweight among children from migrant and native origin in the Netherlands

Marleen Foets

M Foets[1], *W Labree*[1], *D van de Mheen*[2,3,4], *F Rutten*[1,2], *G Rodenburg*, *G Koopmans*[1]
[1]Institute of Health policy and Management, Erasmus University Rotterdam, The Netherlands
[2]IVO Addiction Research Institute, Rotterdam, The Nertherlands
[3]Department of Public Health, ErasmusMc, Rotterdam, The Netherlands
[4]Department of Health Promotion, Maastricht University, Maastricht, The Netherlands
Contact: foets@bmg.eur.nl

Background

Rising prevalence rates of overweight among children form a threat for public health, as overweight is regarded as one of the most leading health threats, also in later life. Migrant children are at increased risk for overweight.

Aim of the study was to investigate to what degree differences in overweight and obesity and in BMI between native Dutch and migrant primary school children could be explained by ethnic differences in physical activity, dietary intake, and sleep duration.

Methods

A cross-sectional study was performed among primary school children with a native Dutch, Turkish, Moroccan, other non-western and other western

Background

Depending on the outcome measure (prevalence of overweight or mean BMI), multivariate logistic or linear regressions analyses were conducted.

Results

Compared to native Dutch children, the prevalence of overweight was higher among Turkish, Moroccan, and non-western children. Their BMI was higher.

Migrant children sleep less. Low sleep duration was associated with a higher prevalence of overweight and a higher BMI.

Intake of fruit and vegetables was lowest and snack intake was highest among Dutch children. Higher snack intake was associated with higher BMI but not with a higher prevalence of overweight.

Finally, physical activity was lower among all migrant children, but not associated with the prevalence of overweight or mean BMI.

Finally, ethnic differences in sleep duration, in dietary intake and in physical activity did not or hardly contribute to the explanation of ethnic differences in the prevalence of overweight or in mean BMI

Conclusion

Some of the counterintuitive findings (e.g.with respect to physical activity) of this study will be discussed in the light of recent scientific evidence and in the light of some methodological problems, including crosscultural validity.

Future preventive strategies to reduce overweight among children in general, should consider the role of sleep duration.

Key messages

- Contrary to the expectations, ethnic differences in overweight in children can hardly be explained by differences in physical activity, dietary intake and sleep duration
- Future preventive strategies to reduce overweight among children should consider the role of sleep duration, but will hardly be able to reduce ethnic differences in overweight

Socioeconomic inequality and perinatal health among immigrants- a Belgian cohort study

Judith Racape

J Racapé[1], *S Alexander*[1,2], *M De Spiegelaere*[2]
[1]Research Center in Epidemiology, Biostatistics and Clinical Research. School of Public Health - Université Libre de Bruxelles - Belgium)
[2]Research Center in health policy and systems. School of Public Health - Université Libre de Bruxelles - Belgium
Contact: jracape@ulb.ac.be

Background

Health inequalities are present at birth in terms of perinatal mortality, birth outcomes and maternal health. Some specific groups, such as migrants have higher health risks during the perinatal period. The objectives of this work were to describe and measure inequalities in perinatal health according to nationality and socio-economic status of mothers in Belgium.

Methods

This study is a population-based cohort study using the data from linked birth and death certificates from the Belgian civil registration system. Data are related to all singleton births during 1998–2010 and whose mother was living in Belgium ($n = 1512829$). Perinatal mortality, prematurity and low birth weight were estimated based on socio-demographic characteristics and nationality of the mother. We used logistic regression to estimate the odds ratios (ORs) for the association between perinatal health and nationality.

Results

Women of Maghreb, sub-Saharan Africa, Turkey and Eastern Europe experience a significant excess in perinatal mortality compared to Belgian ($p < 0.0001$). But this excess does not persist for Turkish and east Europe naturalized mothers. For sub-Saharan Africa women, this excess reflects a high rate of preterm deliveries, low birth weight and low incomes. After adjustment of mother education, perinatal mortality rate are similar to Belgian mother. Turkish naturalized mothers and east Europe mother present a lower perinatal mortality than native Belgian ($p < 0.01$).

Conclusions

In Belgium, patterns of inequalities in perinatal mortality and pregnancy outcomes vary according to nationality. Naturalization and education of the mother have a positive effect on perinatal health. The access to and use of health care could contribute to these differences. Analyses to understand how migration trajectories and socioeconomic status interact are currently underway.

Key message

- After naturalisation some nationality groups present a lower perinatal mortality than native Belgian mother regardless of the socioeconomic level

Knowledge Attitudes and Practices of Tuberculosis among Roma population in Kosovo

Adnora Nurboja

L Krasniqi[1], *S Spahiu*[2], *V Zhjeqi*[3]
[1]Department of Social Medicine, Peja, Kosovo
[2]National Institute of Public Health, Peja, Kosovo
[3]National Institute of Public Health, Pristina, Kosovo
Contact: adnoranurboja@hotmail.com

Introduction

Knowing the importance of assessing minority population related with tuberculosis and needs of strengthening Kosova National TB Program, we have completed Knowledge Attitude and Practice (KAP) survey among Roma population to assess knowledge, beliefs and practices and stigma related with TB.

Aim

To learn more about knowledge, attitudes, and practices of Roma population who lives in Kosova in relation to tuberculosis.

Methodology: Questionnaire with 54 item by 3 teams of investigators. Total number of households surveyed:110. Total number of people surveyed: 324

Results

From 110 family interviewed in the survey we find 12 cases with tuberculosis (some cured and some under the treatment. 49, 6% of the people surveyed is consider ‘‘Tb knowledgeable’’. 83, 7% of the people surveyed know one symptom of TB; While 16, 3% of the people surveyed don't know any symptoms of TB. Only 19, 3% know that TB is airborne disease. The survey show that illiterate people has less knowledge than literate. 29,5% of the people surveyed think that people with TB will try to hide they disease. 33,7% of the people surveyed thinks that TB is shameful disease.

Conclusions

Community education, education services in Family Health Centers, education through patronage services,education services in primary and secondary school, World TB Day campaign, use of mass media, etc.

Key messags

- Community education, education services in Family Health Center

Implementation of a Programme on Cultural Competence in Pediatric Public Health

Erika Sievers

E Sievers
Academy of Public Health, Duesseldorf, Germany
Contact: sievers@akademie-oegw.de

Background

In view of the diversity of children in Germany and increasing immigration, cultural competence is a core qualification in pediatric public heath staff. However, the majority of employees has completed the professional education and therefore additional educational offers are needed.

Objectives

2008, the aim was to raise systematic interest in child migrant health in professionals engaged in the child public health services in Schleswig-Holstein, Hamburg, Bremen, Hesse, Lower Saxony and North Rhine Westphalia, the federal states supporting the Acadamy of Public Health in Germany. Subsequently a widespread offer of courses was developed and offered free of charge: 1.) The qualification in intercultural communication and transfer of structural knowledge to improve the care for migrant children. 2. The transfer of specific skills, e.g. to act with interpreters in the dialogue with the famlies. 3. The introduction of the issue into other thematic areas, e.g. inclusion of one topic concerning migrant child health in course. 4. The training on specific issues on migrant child health and/or development.

Results

The initial acceptance of the programme was heterogenous: However, after full implementation, the three level programme on intercultural communication (1.) sensibilisation, 2.) structural knowledge, information, and case reports, 3.) expert course) attracted > 1400 attendees on level 1, >550 on level 2 and > on level 3 (2/3: Restricted offers). However, this was linked to decentralized offers, avoiding travel times and minimizing institutional financial investment. A common experience of all four offers was the initial hesitance to participate in courses with a 'new' thematic focus. The evaluation, especially of the courses on intercultural communication rendered positive results which were predominantly 1–2 on a scale up to 6.

Conclusions

The current programme on cultural competence in pediatric public health has been implemented successfully and may now be transferred to other target groups of the Academy of Public Health. The courses showed an urgent need for the awareness of qualification needs of current public health services in this thematic area and the respective ressources needed.

Key messages

- The systematic implementation of training of public health staff in culturall competence is needed
- Adequate ressources have to be allocated to enable institutions to support this qualification

Adverse effect of prematurity on the development of children in town of Pleven, Bulgaria

Mariela Kamburova

MS Kamburova, SL Georgieva
Department of Public Health Sciences, Faculty of Public Health, Medical University, Pleven, Bulgaria
Contact: mariela_kamburova@yahoo.com

Background

This study responds to the need of comprehensive analysis of the problems of prematurity and its impact on physical and neuro-psychological development of children up to 3-years of age.

Prematurity is a significant public health problem. Preterm birth, defined as childbirth occurring at less than 37 completed weeks of gestation, is a major determinant of stunting of premature children.

In 2007 the percentage of premature infants was 8.7% in Bulgaria and 7.7% in the town of Pleven.

The study aims to analyze the impact of prematurity over the physical and neuro-psychological development of children less than 3 years of age in town of Pleven, Bulgaria.

Methods

A cohort study among 58 preterm and 192 full-term children who resided in Pleven, Bulgaria was made. The study was comprehensive for the premature children born in 2007 in University Hospital in Pleven. The children were observed from January 2007 through July 2011.

Relative risk (RR) was calculated to determine the effect of prematurity.

Information about the physical and psychological development of children was collected by document analysis of height, weight and neuro-psychological status of children and face to face interview with parents.

Results

The study established statistically significant differences in the height of preterm and term infants: at first year of age (RR 11.68, 95% CI = 4.31-31.64) and at third year (RR 22.96, 95% CI = 2.96-88.56) and statistically significant difference in the weight: at first year (RR 9.55, 95% CI = 3.47-26.25) and at third year (RR 14.77, 95% CI = 3.12-70.04).

We found higher risk for retardation in neuro-psychological development of premature children in early childhood in comparison with full-term born children (RR 2.3, 95% CI = 1.3-3.9).

Conclusion

The findings confirmed the adverse effect of prematurity as a risk factor for stunting in physical and neuro-psychological development of premature children up to three years of age living in urban areas in Bulgaria.

Key messages

- Prematurity is a significant public health problem. Premature children have higher risk for stunting in physical and neuro-psychological development up to 3-years of age
- Premature infants are a risk group for analysis of problems of prematurity in Bulgaria and its impact on physical and neuro-psychological development of children up to 3-years of age

Public Policy for Improving Roma Health - specific programmes or mainstream interventions dilemma

Elena Tudose

E Tudose
Academy of Economic Studies, Bucharest, ROMANIA; Institute for Public Policy, Bucharest, Romania
Contact: elena@ipp.ro

The new programming exercise for European Structural and Investment Funds 2014 – 2020 has brought to attention an older policy dilemma in Romania: how to approach a vulnerable group – Roma communities - through its specific needs in terms of health condition, yet with measures able to generate genuine social inclusion, not segregation, nor assimilation.

The paper argues that neither the upcoming Operational Programs funded through ESIF, nor national strategic documents have actually researched the deep causes of potential differences in health status or (lack) of access to health services of Roma population versus the majority population. Statistic evidence is scarce to non-existent in the region, thus, although exclusion/marginalization does occur frequently with Roma access to healthcare, there is no actual solution to it - although financial resources might be available - unless the whole system would shift to a new perspective in understanding the health inequalities between Roma and the majority population. Published literature on health needs of Roma in countries such as Spain, Czech Republic and Slovakia point to problems which demonstrate need for further research, such as the high incidence of underweight new-born babies with Roma young mothers, the massive occurrence of congenital malformations supposedly associated with consanguinity or prevalence of certain chronic diseases caused by a different lifestyle (e.g. diabetes). However, such research is still not available in many EU member states, thus resources that countries, such as Romania, have at their disposal from both national budgets and EU funds available for 2014 – 2020 have little potential to generate significant changes in terms of improving Roma health condition, but rather focus on inertial investment in segregationist infrastructure (e.g. socio-medical health centres for Roma) or community link workers (e.g. health mediators) without a clear view how these investments would contribute to improving Roma health.

Key message

- Improvement of Roma health condition through channelled investment from EU funds needs prior in-depth research of the causes of health inequalities rather than continuing to support infrastructure

Paralegals – a tool for improvement of the health of the Roma Community in Macedonia

Zoran Bikovski

Z Bikovski
NGO 'KHAM' Delchevo, Macedonia
Contact: z_bikovski@yahoo.com

Issue

The Roma community faces a lot of barriers in the implementation of their health rights. They face inequalities in healthcare, stereotypes, and informal payments charged by health professionals. Their poverty level is significantly higher than among the majority population, which makes them unable to pay for health services. They also lack access to information about ongoing changes in the health sector. There are no gynecologists in the municipality of Suto Orizari, and Roma from Delcevo must travel 350 km to access services of secondary and tertiary healthcare, which comes at an extra cost.A program of paralegals has been launched in the municipalities of Delcevo and Suto Orizari and implemented during the period June 2014 – May 2015. In the context of a comparative analysis of the barriers faced by Roma in healthcare, the presentation will highlight the role of paralegals, the methodology and the impact of their work measured as a difference in the power of the Roma community before and after the implementation of the program.

Results include a change in the mentality of the communities and successful advocacy for issues of common interest related to health and healthcare. A database and the community monitoring method used by the paralegals have facilitated the identification of the main problems faced by the Roma communities in the health sector, and collection of evidence for advocacy for change. Examples for community-based advocacy include submitting petitions to competent institutions for establishing emergency health services, opening immunization facilities, establishing a commission

The main lesson is to work with the Roma community, not to work for the community. Empowering the community has the power to bring about changes. Our project illustrates the importance of not fighting the consequences of problems but addressing the reasons that created the problems

Key messages

- Work with the Roma community, not to work for the community
- Empowering the community has the power to bring about changes

Reproductive health needs and access to health services among Roma women in district Pleven, Bulgaria

Pepa Karadzhova

P Karadzhova[1], K Romanov[2], M Kamburova[3]
[1]Medical University of Pleven, Bulgaria
[2]Bulgarian Family Planning and Sexual Health Association, Pleven, Bulgaria
[3]Department of Social medicine, Faculty of Public health, Medical University of Pleven, Bulgaria
Contact: karadzhova@yahoo.com

Background

Roma are among the most vulnerable groups, and Roma women in countries of Eastern Europe have lower access to sexual reproductive health services (SRH) than the majority populations. Factors such as low education levels and high poverty rates seem to impact on family planning among Roma women. Lack of access to and use of contraception often results in teenage and unwanted pregnancies.

Methods

The focus-group method was used to investigate access to family planning supplies and maternal health services and knowledge about contraception among Roma women. 26 Roma pregnant women aged 14–35 years participated in the focus group discussions.

Results

50 % of the interviewed Roma women didn't use any contraceptive methods. The most practiced methods among those who used them were: coitus interruptus (59%) and intrauterine devices (49%). 70 % didn't have health insurance coverage and indicated this as a reason for not attending regular health checks.

Conclusions

Maternal health is a serious concern among Roma women. Due to a number of factors, Roma women are at a higher risk of complications during pregnancy than the general population. An important finding of our study was Roma women's confidence in doctors. Usually, a lack of confidence in healthcare workers is reported among Roma patients, however, our results indicate the opposite. Our study illustrates a positive example of how better training of health care staff reduces the stigma and prejudices against Roma patients and improves their access to reproductive health services.

Key messages

- Maternal health is a serious concern among Roma women
- Our study illustrates a positive example of how appropriate training for health staff improves access of Roma women to sexual and reproductive health service

Midwives' experiences of providing care to foreign-born women seeking abortion care in Sweden

Elin Larsson

EC Larsson[1], Sarah Fried[1], K Gemzell-Danielsson[1], B Essén[2], M Klingberg-Allvin[1,3]
[1]Dept. of Women's and Children's Health, Karolinska Institutet, Stockholm, Sweden
[2]Department of Women's and Children's Health, International Maternal and Child Health Uppsala University, Uppsala, Sweden
[3]Högskolan Dalarna/Dalarna University, Falun, Sweden
Contact: elin.larsson@ki.se

Background

Sexual and Reproductive Health (SRH) was recognized as a human right at the International Conference on Population and Development of −94 in Cairo. Sub-optimal SRH care of foreign-born people have been reported in both international and Swedish research. Culturally marked norms and values have a profound impact on the area of SRH, including contraceptive counseling and abortion care. A culturally competent approach in health service provision has been shown to improve reproductive health care utilization among foreign-born women in Australia. The aim of this study is to explore midwives' experiences of providing care and contraceptive counseling to foreign-born women seeking abortion care.

Methods

Qualitative interviews with ten midwives from three abortion clinics in the Stockholm area were analyzed using thematic analysis.

Results

Midwives were reluctant to generalize the needs of foreign-born women. Yet, data revealed specific needs of foreign-born women as experienced by midwives. A main theme was identified; Accommodating the specific needs related to pre- and post migration factors - a challenge in the encounter. Three categories were identified: Handling poor knowledge, The influence of life situations, and Perceptions and beliefs influencing contraception. These can be interpreted as needs that appear when pre- and post migration factors co-exist or collide.

Conclusions

Migration factors such as poor language knowledge, insufficient knowledge of SRH, and cultural influences are important to consider when providing abortion care to foreign-born women. Midwives' understanding of the needs of foreign-born women is informal; the impact of culture and migration has not been officially acknowledged or incorporated into guidelines and protocols for abortion care.

Key message

- Foreign-born women often have special needs that have an impact on the health care encounter and have to be acknowledged in midwifery abortion care

Undocumented migrants Seeking Medical Care in Russia, barriers and informal strategies

Daniel Kashnitsky

D Kashnitsky, E Demintseva
Institute of Social Development Studies, National Research University Higher School of Economics, Moscow, Russia
Contact: kashnitsky@gmail.com

Previous studies of labor migrants from Central Asia living and working in Russia suggest that their life is characterized by limited resources, social exclusion, discrimination and low awareness about available medical services. This is even more serious for undocumented migrants who fear any contact with authorities including hospital and clinic administration.

Russian Federal Migration Service estimates the number of undocumented migrants in the country to be about 3.6 million, with roughly one million living and working in the capital Moscow.

The goal of our study was to investigate how undocumented migrants use formal and informal strategies to overcome the barriers on their way to receiving medical care in Moscow, Russia.

Our qualitative study is based on the analysis of in-depth semi-structured interviews with 60 migrants and 25 caregivers working in Moscow-based medical facilities conducted from April to August 2014.

We have identified five strategies of seeking medical care in Moscow. Self treatment and brief consultations in pharmacies is the most common practice to alleviate the symptoms of disease (1). In severe conditions emergency care is accessible to migrants in Moscow for free (2). Planned medical care is only available in private clinics often held by immigrants from Kyrgyzstan (3) or could be sought in state outpatient clinics using intermediaries, helpers and other informal strategies (4). In the case of a serious disease migrants choose an option of returning home (5).

Affordable health coverage should be available for the migrants that would allow a wide access to planned medical care.

An awareness campaign among migrants should be launched on the city level to allow migrants access to up-to-date information on available care, social support and disease prevention.

The "health shield" approach should be enacted in Russian clinics to ensure undocumented migrants' data is never reported to migration service and the police.

Key messages

- Undocumented labor migrants have multiple barriers on their way to receiving medical care in Russia so they have to disregard treatment or look for alternative strategies often informal
- Russian economy benefits from the labor force of undocumented migrants from Central Asia, however it does not provide them with a viable healthcare option

Assessment of irregular migrants' quality of life in Rome, Italy, in 2014

Valeria D'Egidio

V D'Egidio[1], D Mipatrini[1], P Massetti[1], V Vullo[1], G La Torre[1]
Department of Public Health and Infectious Diseases, Sapienza University of Rome, Italy
Contact: valeria.degidio@gmail.com

Background

Health-Related Quality of Life (HRQoL) includes physical, emotional and social health dimensions. Studies conducted worldwide show lower levels of HRQoL in migrant compared to the native populations.

The aim of the present study is to evaluate the level of HRQoL and its determinants among migrants in irregular situations in Italy.

Methods

A cross-sectional study took place in 2014 among at the teaching hospital Umberto I of Rome. The questionnaire was concerning: SF-12 tool for assessing the HRQoL including the Physical (PCS) and the Mental Component Summary (MCS); socio-demographic information; medical conditions. The category Poverty Related Diseases (PRDs) has been defined including some infectious, mental and pathological conditions due to unhealthy lifestyles. Bivariate and multivariate analyses were performed to assess the impact of demographic and pathological variables on the HRQoL.

Results

The mean PCS among the 200 participants was 46.5 and the mean MCS was 37,9 with MCS more than 10 percent points above the Italian natives' MCS average. The multivariate analysis reveals the negative impact of age ($P < 0.01$), respiratory diseases (P: 0.03) and PRDs ($P < 0.01$) on PCS. MCS is decreased by poverty related ($P < 0.01$) and neuropsychiatric (P: < 0.01) diseases. Although multivariate analyses reveal gender being an effect modifier the negative association between PRDs and MCS and PCS is confirmed in both genders.

Conclusion

PRDsare associated with lower levels of HRQoL in migrant population suggesting a great impact of socio-economic status on the HRQoL.

Public health strategies counteracting PRDs are the key point to improve migrants' HRQoL through the implementation of: prevention programs for infectious diseases acting on immunization levels and risk behaviors; active surveillance of infectious disease guarantying high levels of accessibility to health service; promotion of healthy lifestyles with attention to addictions prevention; socio-sanitary integration.

Key messages

- The level of HRQoL of irregular migrants are lower than native Italians average and PRDs highly affect the HRQoL of migrants in irregular situation in Italy
- Public Health interventions addressed to reduce the prevalence of PRDs and socio-sanitary integration may significantly improve irregular migrants HRQoL

Immigrant mothers and neonatal outcome

Francesca Menegazzo

Ferrante, Salmaso, Casagranda, Facchin
Unit of Epidemiology and Community medicine, Padua Univeristy Hospital, Padova, Italia
Contact: megazzofrancesca@libero.it

Background

In the last 20 years in the Veneto Region the percentage of immigrant mothers' children is gradually increased up to 30% of births.

The aim of our study was the description of the deliveries of foreing-born mothers in the Veneto Region (years 2004–2013) and to investigate whether infants of foreign-born mothers have different adverse neonatal outcomes compared to those of native-born mothers.

Methods

Two sources have been used: the birth certificates (years 2004–2013), and the Hospital discharge records (years 2008–2012). Migrant mothers were divided into 12 subgroups according to the different geographical origin. Descriptive analysis were conducted on maternal and neonatal characteristics. Logistic regression analysis were conducted to find the risk factors for cesarean section and unfavorable neonatal outcome.

Results

During the period between the years 2004–2013 there were 460.805 births.

The foreing-born mothers were 123.241.

The origins were heterogeneous: the majority coming from Romania, Morocco, Albania, China and Nigeria. Migrant mothers are different than Italians: they are younger, with level of education and employment rate lower, less supported by the family network. Some nationalities are associated with an increased risk of cesarean delivery: Nigeria (with double risk compared to Italian), other African nations, Asian countries (excluding China), Central and South America.

For Chinese and Balkans, nationality is a protective factor.

Neonatal outcome is worse for newborns from Africa, the Middle East, Romania, Eastern European countries, Asian countries (excluding China). Neonatal outcome is better for Chinese and Albanians.

Conclusions

Our findings suggest that migrant status is a risk factor with considerable heterogeneity in the subgroups in the socio-demographic characteristics, in maternal-neonatal care and outcome.

Key messages

- The Mother-child health services are required to remove the cultural and organizational barriers to improve the accessibility for foreing-born mothers
- In planning preventive strategies the differences (between migrants and Italian, and among migrants) must be taken into account

Abortion rates and access contraception among Swedish-born and foreign-born women in Sweden

Elin Larsson

EC Larsson[1], K Emtell-Iwarsson[1], K Gemzell-Danielsson[1], B Essén[2], M Klingberg-Allvin[1,2]
[1]Dept. of Women's and Children's Health, Karolinska Institutet, Stockholm, Sweden
[2]Department of Women's and Children's Health, International Maternal and Child Health Uppsala University, Uppsala, Sweden
[3]Högskolan Dalarna/Dalarna University, Falun, Sweden
Contact: elin.larsson@ki.se

Background

Access to contraception could prevent unwanted pregnancies. Previous work from Europe and North America has shown that foreign-born women have higher rates of abortion as compared to native-born women. Foreign-born women have lower use of contraception. This study investigates both abortion rates among foreign-born and Swedish-born women, and compares access to contraception among foreign- and Swedish born women.

Methods

This is cross-sectional, health facility-based study at five abortion clinics in Stockholm, Sweden. Data were collected January- April 2015. Eligible for the study were women above 18 years seeking abortion care. Women who agreed to participate ($n = 792$) were interviewed by midwives (when needed together with an interpreter) after their first visit. The main outcome is abortion rates among foreign-born- and Swedish-born women and, contraceptive use (ever in life and at the time of study). Adjusted odds ratios will be presented for having an abortion, as well as for access to contraceptives.

Results

Preliminary analysis shows that foreign-born women have a higher rate of abortion as compared to Swedish born women, and that this seems to be more prominent among women born in Sweden to two foreign-born parents. Further does foreign-born women appear to be older when seeking abortion care, have lower ''ever use'' of contraceptives, and be more likely to use ineffective contraceptive methods, as compared to Swedish-born women. These are preliminary results, data collection was completed in April. Final analysis will be completed in September 2015.

Conclusions

Universal and equal access to sexual and reproductive health is a public health priority in Sweden. Foreign-born women have a higher unmet need for contraception and a higher abortion rate as compared to Swedish-born women. It is crucial to find ways to reduce these inequalities.

Key message

- There is a need for targeted interventions to increase access to contraception among foreign-born women. Interventions should be designed and implemented in collaboration with the target group

Probabilities of transition among health states of older immigrants in Europe

Donatella Lanari

D Lanari[1], O Bussini[2], Liliana Minelli[1]
[1]Department of Experimental Medicine, Section of Public Health, University of Perugia, Perugia, Italy
[2]Department of Political Science, University of Perugia, Perugia, Italy
Contact: dlanari@stat.unipg.it

Background

The 'health vulnerability' of immigrants aged 50 and over living in Northern and Western Europe have been highlighted in a recent study (Lanari and Bussini, 2012). In this paper we do another step in our research on health inequalities aiming to investigate the probabilities of transition among health states for middle-aged and older adults in Europe and examine how they vary by age, sex and immigrant status. It is important for policy makers to analyse the changes over time in different aspects of immigrants health status so that clearly defined policy measures can be adopted to improve their health and planning relevant health services.

Methods

This study is based on data obtained from the Survey of Health, Ageing and Retirement collected every two years starting from 2004 to 2010 (SHARE, waves 1–2-4) for 11 European countries. The health measures included self-rated health, depression and ADLs. We use transition probabilities models to assess prevalence and incidence of health and sick states for some groups. Ordered logit specifications were used to condition these matrices on various individual characteristics.

Results

Preliminary results show that natives and immigrants experienced different types of change in health over time, with natives showing more health and less sickness. In all domains of health, older immigrants' health status deteriorated more frequently with respect to natives, even if results emphasize a large heterogeneity found among immigrants' groups. In particular, Eastern European people were most likely to experience worsening health and less likely to recover from sickness.

Conclusions

Results confirmed the findings of our previous paper since ''being an immigrant'' can be considered a risk factor in addition to low socioeconomic conditions which may be a determinant of health worsening.

Key messages

- we aim to investigate the probabilities of transition among health states for middle-aged and older adults in Europe and examine how they vary by age, sex and immigrant status
- In all domains of health, older immigrants' health status deteriorated more frequently with respect to natives

Cardiovascular disease among Romani people in Romania

David Mangaloiu

D Mangaloiu[1], M Dumitru[1], A Punga[1], A Lungu[2]
[1]''Carol Davila'' University of Medicine and Pharmacy Bucharest, Romania
[2]The University Emergency Hospital Bucharest, Romania
Contact: david_valentin72@yahoo.com

Background

In Romania, ethnic identity is an important dimension of health inequalities. Romani people's health status is demonstrably poorer than other Romanians'. Although Roma are Europe's largest ethnic minority, studies demonstrate that they face serious barriers in access to the health system. Such barriers include poverty, discrimination, lack of health insurance and other official documents (identity cards, birth certificates), failure to communicate or language obstacles, leading to exclusion of Roma from health services.

Method

200 Romani men and women were questioned and benefited from medical examination and support in a health campaign conducted by our institution. We calculated the body mass index (BMI) and collected data regarding blood pressure, blood sugar level and personal history.

Results

48% of the subjects had a blood pressure over 150/90 and were diagnosed with hypertension. 53.5% were obese, of which 20% were men. Out of the 53.5% obese subjects, 12% were also suffering from diabetes. Our studies demonstrate that a significant share of Romani people over the age of 40 suffer from arterial hypertension, hyperglycemia and obesity. Hypertension was the most frequently encountered problem and the majority of patients were not aware of their illness. The case histories revealed a stressful lifestyle (mostly related to the need to provide food and shelter for their family) which was very likely to be associated with high blood pressure. Subjects who were found to be suffering from arterial hypertension were sent for a cardiology consult in order to obtain proper treatment.

Conclusions

To reduce the incidence of arterial hypertension among Romani people we recommend the following measures: health mediators should be present in all Roma communities to facilitate Romani people's integration in the health system; Romani without birth certificate or identity card should be identified and provided with official documents as soon as possible; awareness raising campaigns are mandatory in order to convince more Romani people about the importance of having health insurance and proper medical care; health campaigns are to be organized in order to help Romani people to recognize the symptoms of heart disease as well as the risk factors.

Knowledge about Nutrition among Lithuanian University Students

Valerij Dobrovolskij

V Dobrovolskij, R Stukas
Institute of Public Health, Faculty of Medicine, Vilnius University, Vilnius, Lithuania
Contact: valerij.dobrovolskij@mf.vu.lt

Background

The importance of nutrition knowledge in shaping nutrition is often underestimated. Knowledge is the basis for the further determination of nutrition-related behaviours. The place of nutrition knowledge is somewhere among the set of perceptions a person may hold about a food and the behaviours they might have in relation to that food. The aim of the study was to establish and assess students' knowledge about nutrition.

Methods

Target population was students of the Lithuanian universities. 1910 questionnaires were distributed and collected; 86 of them were filled in improperly, the 1824 were used in the study. The level of statistical significance was chosen $\alpha = 0.05$; the results were assessed as statistically significant when $p \leq 0.05$.

Results

64.6 percent of the students have insufficient knowledge about nutrition. More student girls, unemployed, non-smokers, sufficiently physically active and keeping healthy diets had sufficient knowledge on nutrition.

Conclusions

Knowledge about nutrition of almost 2/3 of the students is insufficient.

Key messages

- The importance of nutrition knowledge in shaping nutrition is often underestimated
- Knowledge about nutrition of almost 2/3 of the students is insufficient

Alcohol, drug, tobacco and doping prevention by non-governmental organizations in Sweden 2003–2012

Charli Eriksson

I Fredriksson, C Eriksson, S Geidne, S Green, M Larsson, C Pettersson
Faculty of Medicine and Health, School of Health and Medical Sciences, Örebro, Sweden
Contact: charli.eriksson@oru.se

Background

In Sweden, there is a strong political belief that non-governmental organizations (NGOs) are important in health promotion and prevention, particularly in the areas of alcohol, drugs, doping and tobacco (ANDT). The Government therefore annually allocates about 2 million euros for this work. This study highlights the involved NGOs, added values and obstacles within NGOs ANDT prevention and conditions required for a successful preventive work.

Method

The study is based on 375 project grants including 190 unique projects implemented by 60 NGOs between the years 2003–2012. In surveys every two years, a total of 168 questionnaires were answered by 112 different project leaders. Both quantitative and qualitative methods were used for analysis.

Results

There is a wide range and variety of different NGOs working with ANDT prevention. Added value of NGOs prevention work is that they counterbalance the public sector, have a familiarity and cultural competence that are important for the target groups and they possess a unique force in its voluntariness. Perceived barriers are short-term project funds, time constraints, limited target group, lack of knowledge and trust from the surrounding society. Successful ANDT prevention requires a well-functioning organization with clear structures and support functions, a goal-oriented and knowledge-based work, support from the public sector and R & D as well as collaboration between different actors.

Conclusion

With good organisational conditions and proper support NGOs can be an important complement to public ANDT prevention. They have an ability to reach and attract vulnerable target groups not reached by public interventions. There is a unique power and determination in NGOs.

Key messages

- NGOs play an important role and are an important complement within ANDT-prevention
- NGOs uniqueness creates an important added value in ANDT prevention

Y.D. Poster Displays: Research, evidence and action

Application of the Safety Attitudes Questionnaire (SAQ) in Albanian hospitals

Jonila Gabrani

A Gabrani[1], *A Hoxha*[2], *A Simaku*[3], *J Gabrani*[1]
[1]Department of Health Management, Faculty of Public Health, University of Medicine, Tirana, Albania
[2]Department of Health and Environment, Faculty of Public Health, University of Medicine, Tirana, Albania
[3]Institute of Public Health, Tirana, Albania
Contact: jonila11@yahoo.com

Objective

To establish the reliability and validity of the translated version of the Safety Attitudes Questionnaire (SAQ) by evaluating its psychometric properties and to determine possible differences among nurses and physicians regarding safety attitudes.

Design

A cross-sectional study utilising the Albanian version of the SAQ and a demographic questionnaire.

Setting Four regional hospitals in Albania.

Participants 341 healthcare providers, including 132 nurses and 209 doctors.

Main outcome measure(s) The translation, construct validity and internal validity of the SAQ. The SAQ includes six scales and 30 items.

Results

A total of 341 valid questionnaires were returned, for a response rate of 70%. The confirmatory factor analysis and its goodness-of-fit indices (standardised root mean square residual 0.075, root mean square error of approximation 0.044 and comparative fit index 0.97) showed good model fit. The Cronbach's α values for each of the scales of the SAQ ranged from 0.64 to 0.82. The percentage of hospital healthcare workers who had a positive attitude was 60.3% for the teamwork climate, 57.2% for the safety climate, 58.4% for job satisfaction, 37.4% for stress recognition, 59.3% for the perception of management and 49.5% for working conditions. Intercorrelations showed that the subscales had moderate-to-high correlations with one another. Nurses were more hesitant to admit and report errors; only 55% of physicians and 44% of nurses endorsed this statement ($\chi2 = 4.9$, $p = 0.02$). Moreover, nurses received lower scores on team work compared with doctors (N 45.7 vs D 52.3, $p = 0.01$). Doctors denied the effects of stress and fatigue on their performance (N 46.7 vs D 39.5, $p < 0.01$), neglecting the workload.

Conclusions

The SAQ is a useful tool for evaluating safety attitudes in Albanian hospitals. In light of the health workforce's poor recognition of stress, establishing patient safety programmes should be a priority among policymakers in Albania.

Key message

- In light of the health workforce's poor recognition of stress, establishing patient safety programmes should be a priority among policymakers in Albania

Enhancing colorectal cancer screening evaluation: a proposal of comprehensive indicators

Andrea Buron

A Buron[1,2,3], *F Macia*[1,2,3], *J Grau*[3,4], *M Andreu*[1,3], *M Comas*[1,2], *M Salvador*[1,5], *C Hernandez*[1,2], *X Castells*[1,2,3], *A Castells*[3,4]
[1]Hospital del Mar-IMIM, Barcelona, Spain
[2]REDISSEC, Spain
[3]Barcelona Colorectal Cancer Screening Programme, Barcelona, Spain
[4]Hospital Clínic, Barcelona, Spain
[5]Public Health Training Unit Mar-UPF-ASPB, Spain
Contact: aburon@hospitaldelmar.cat

Issue

Evaluation of colorectal cancer screening outcomes are fundamental to identifying whether a programme is achieving its goals. It is recognised that the context and logistics of screening programmes will differ by country and even by region and that their organisational aspects will influence their outcomes and their interpretation.

Description of the problem

The European guidelines recommended a set of defined variables and indicators. However, these are being measured and calculated inconsistently by different national and regional programmes, thus further hindering their comparability. In the Catalan programme, moreover, the way some indicators are being calculated, particularly uptake and coverage, together with the temporary exclusion of people undergoing opportunistic screening and those with a normal colonoscopy outcome, is altering the meaning of the indicators as well as the target and the eligible population. Furthermore, people with a previously diagnosed or a screen detected advanced neoplasia (among others) are being excluded and thus falling out of the screening programme's oversight.

Results

We present a proposal of ''comprehensive indicators'' intended to address all these issues: screening rate (includes people temporarily excluded for normal colonoscopy), coverage rate (includes opportunistic screening), high-risk screening rate (not screened but identified by the programme and theoretically under external surveillance), and prevention rate (includes all of the above). Using the database of the Barcelona screening programme and a simmulation programme, we compare the values of the current and the proposed indicators over 10 screening rounds. As expected, the numerical values of all indicators increase with every consecutive round, but the differences between them also broaden over time.

Key messages

- The new set of indicators allows for a more comprehensive evaluation of the outcomes and could enhance comparability among programmes
- We believe that the programmes' impact on public health could be increased if the high risk population are kept under the programmes' oversight and control

Gaining better health for celiac people and economy is achievable

Emilia Guberti

E Guberti
Department of Public Health Local Health Authority, Bologna, Italy
''Food and nutrition'' team work of Società Italiana di Igiene Medicina Preventiva e Sanità Pubblica (SItI), Italy
Contact: emilia.guberti@ausl.bologna.it

Problem

Celiac disease is a permanent intolerance to gluten, found in the most commonly used cereals, which can cause damage to the intestinal mucosa, even with serious GI or non-GI symptoms.

It is estimated to affect 1 in 100 people Worldwide. In 2013, 164,492 cases were diagnosed in Italy (almost 10,000 in Emilia-Romagna, over 2,000 in Bologna).

The only treatment for celiac disease is lifelong adherence to a strict gluten-free diet.

Results

The Food Safety and Nutrition Service (FSNS) of the Local Health Unit of Bologna has promoted actions to:

a) support gluten-free diets for celiac people in schools, workplaces and free time
b) develop gluten-free production sites and access to a diverse, safe and well-balanced diet for celiac people.

Since 2004 FSNS has collaborated with Italian Celiac Association to define problems and desires of celiac people in Bologna. Training and control measures have been implemented in schools, hospitals and workplaces to promote gluten-free diets, pursuant to Italian law 123/2005. Currently, all school and hospital public workplace canteens provide gluten-free meals and in ten years the restaurants in Bologna capable of doing so has grown by five.

The FSNS of Bologna held a conference in 2008 to promote collaboration between Regions, Ministry of Heath, patients' associations, traders, to develop guidelines for production of home-made gluten-free foods.

Five food education courses have been designed for celiac people and their families, involving 125 newly-diagnosed subjects, to enhance adhesion and maintenance of gluten-free diets, which has proven very successful.

A space has been dedicated on the Website of the USL of Bologna to Celiac Disease, with an information desk, assistance for enterprises and a free phone line.

Lessons

These measures prove that public health institutions can identify and solve problems with innovative solutions, minimizing costs, creating opportunity for food business as required by the hard economic situation.

Key messages

- Prevention and education are of the utmost importance for a genetic pathology, the celiac disease, which can only be controlled through the diet and which is a growing concern worldwide
- Gluten free food production created new work opportunities for food business operators and it helped to reduce health inequalities

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How are health equity aspects articulated in the public health policy documents in Saudi Arabia

Leena Eklund Karlsson

L Eklund Karlsson[1], F Saleh[2], S Azam[1], E Ladekjaer Larsen[1], P Tanggaard Andersen[1], T Alrammah[3]
[1]Unit for Health Promotion Research, University of Southern Denmark, Esbjerg, Denmark
[2]Faculty of Rehabilitation and Health Sciences, Princess Nora Bint Abdul Rahman University, Riyadh, Saudi Arabia
[3]King Saud University, Riyadh, Saudi Arabia
Contact: leklund@health.sdu.dk

Background

Inequities in health exist all over the world showing systematic differences in health between different socioeconomic groups. Healthy public policies (i.e. integrating health perspectives in all sector policies) address inequities in health and are means by which governments show their will to promote equity. Saudi Arabia (KSA) is one of the Arab countries that report health equity as part of its mission statement. However, analyses of the equity aspects of public health and social policies are lacking from KSA. The aims of the study were to identify policy documents in KSA relevant to public health and to explore whether the documents include an equity perspective, and whether the suggested measures in these documents communicate a clear focus on promoting equity and/or on addressing the social gradient (the term refers to, that health improves with income throughout the income distribution).

Methods

Data consisted of health policy documents and papers, strategic plans, goals and objectives published in the Web sites of the Ministries between 2008–14 and were analysed through qualitative content analysis.

Results

Seven strategies relevant for public health were found from the ministries of health, economy and planning, labour, and higher education (The long-term strategy for the Saudi economy, 9th development plan 2010–14, Youth strategy, Saudi strategic plan, Saudi employment strategy, Vision statement of the Ministry of Health, and the E-health strategy). The term equity was not explicitly used in these documents but the idea of equity was implicitly communicated by addressing objectives for tackling poverty and guaranteeing that all social groups share the benefits of growth and improvement of quality of life.

Conclusions

The state's role to protect health and provide health care to every citizen was emphasised. However, there is a need for an in-depth analysis on the concrete policy measures and implementation addressing health equity in KSA.

Key messages

- Analysis on public health policies through an equity perspective has been recently conducted in 6 Arabic countries. Corresponding analysis is presently lacking from Saudi Arabia
- There is a political will in KSA for ensuring population health equity. However, further analysis of the implementation of the policy measures intended to guarantee health equity in KSA is needed

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Applying a Health Equity Promotion Lens to Prenatal Care for Inner-City Families in Winnipeg, Canada

Lynda Tjaden

L Tjaden, M Heaman, Z Marzan Chang, L Elliott on behalf of the PIIPC research team
Winnipeg Regional Health Authority, University of Manitoba, Canada
Contact: ltjaden@wrha.mb.ca

Issue/Problem

Despite a history of social justice policies, substantial inequities persist, by georgraphy, in Canada. For example, life expectancy of a child born in the inner-city of Winnipeg, Canada is nineteen years less that of a child born in suburban areas. Thus, health equity promotion is a strategic priority of the Public Health team in Winnipeg with the prenatal period being identified as an opportune time to address health inequities.

Description

The objective of the Partners in Inner-City Integrated Prenatal Care (PIIPC) project is to improve access to, and use of, prenatal care (PNC) services within inner-city Winnipeg. PIIPC is an example of applying concepts of health equity promotion to transform health systems to better meet the needs of those who experience social and economic disadvantage. The PIIPC project is a collaboration between health providers, researchers, government representatives, and First Nations partners. PIIPC was implemented in Fall, 2012, and consists of four inter-related initiatives. Evaluation of the project uses a mixed methods approach to obtain qualitative input from women and their health care providers including; a questionnaire, chart review, and a ''before and after'' population level assessment of rates of inadequate PNC.

Results

Results indicate that the PIIPC approach has improved access to and use of prenatal care for women in the inner-city. Women describe the services as helpful, respectful and non-judgmental, while providers value improved communication and the team approach. Rather than expecting women and families who experience disadvantage to adapt to the health system, the project demonstrates how a health system can adapt to become more accessible and effective for families.

Lessons

An integrated knowledge translation approach contributed to development of an evidence-informed health system improvement with a robust evaluation plan. Our findings suggest that focused attempts to address health inequities have the potential to lead to health improvements at the individual and population level.

Key messages

- The prenatal period is an opportune time to improve the health of disadvantaged families
- The PIIPC project demonstrates health equity promotion in action. Preliminary results are promising

Pedestrian mortality trends in children and young people over four decades in transitional Lithuania

Birute Strukcinskiene

B Strukcinskiene[1], *R Bauer*[2], *A Razbadauskas*[1]
[1]Faculty of Health Sciences, Klaipeda University, Klaipeda, Lithuania
[2]Austrian Road Safety Board (KFV), Vienna, Austria
Contact: birutedoctor@hotmail.com

Background

In the EU, Lithuania shows the high percentage of pedestrian fatalities. The aim of the study was to examine the long-term trends in pedestrian mortality for children (aged 0 to 14 years) and young people (aged 15 to 19 years) from 1971 to 2011, in particular the potential effect of Independence in 1991.

Methods

Road traffic fatality data were obtained from Statistics Lithuania and the Archives of Health Information Centre from 1971 to 2011. Trends were analysed by linear regression using "Independence" as a slope-changing intervention in 1991 and population as a further explanatory factor in structural time series models.

Results

The impact of the predictor "Independence 1991" on pedestrian fatality trends in time series model was found highly statistically significant for children 0 to 14 years and still significant for young people 15 to 19 years. No significant impact of Independence on the trend of road traffic deaths was found for the "control-groups" of non-pedestrian road users in the age group 0 to 14 years and adult pedestrians (over 19 years of age). For the age group 15 to 19 years the effect of Independence was also significant for non-pedestrians. These results indicate that the effect of Independence was more specific in children who participated in road traffic as pedestrians compared to adult pedestrians or in non-pedestrian road users.

Conclusions

Pedestrian deaths in Lithuania fell significantly in the age groups 0–14 and 15–19 years. Socioeconomic and political transformations, systematic reforms in health care along with sustainable preventive measures may have contributed to this decrease. Targeted road safety measures were road traffic regulations, pedestrian education and environmentally based prevention measures. For child pedestrians continued road safety education and promotion are recommended in order to maintain this trend, and to involve adult pedestrians in this development.

Key messages

- A declining trend was found in road traffic fatalities and in pedestrian deaths in transitional Lithuania after the Independence
- Continued road safety measures are recommended in order to maintain this trend

Relationship between nutrition knowledge and development of complications in type2 diabetic patients

Deniz Korkut

D Korkut, G Ergor
Dokuz Eylul University Department of Public Health, Institute of Health Science, Izmir, Turkey
Contact: denizkorkut20@hotmail.com

Background

Diabetes is increasing rapidly in Turkey as most countries in the world. The prevention of complications which is the main aim in the treatment of diabetes can be accomplished partly with nutrition education. The aim of this study is determining the relationship between nutrition knowledge (NK) and complications in patients with type 2 diabetes.

Methods

280 patients with 8–20 years of diabetes duration who applied to diet and endocrinology outpatient clinic were recruited. The questionnaire was prepared by the investigator to assess the NK. A score was calculated on the scale of 100. The complications were determined based on hospital records and patients' self-report.

Results

177 (63.2%) of 280 participants were female and 103 (36.8%) were male. The average duration of diabetes was 13.2 ± 4.0 years. The most common complications in participants were retinopathy (56.1%) and neuropathy (42.9%). The average NK score was 80.2 ± 11.7. At least one complication was seen in the 85.0% of the participants. There was no significant difference for having any complication in patients with adequate and inadequate NK. However the risk of diabetic foot (OR = 4.58, 95% CI = 1.29-17.50), and coronary artery disease (CAD) was higher (OR = 2.23, 95% CI = 1.13-4.40) in women with inadequate NK.

Conclusions

NK is quite high in long term diabetic patients. However the effect of the knowledge could not be shown on the development of complications. The difference of effect between men and women could be due to the fact that food is mostly prepared by women thus not much chance of the knowledge of men to be reflected on his eating habits. The knowledge difference among female patients was seen in the results as; in women with inadequate NK, the prevalence of diabetic foot and CAD was significantly higher.

Key messages

- Diabetic foot and coronary artery disease can be reduced with nutrition education in diabetic women
- There isn't a significant relationship between nutrition knowledge and any complication in men

Portuguese National Health Examination Survey: Lessons from data collection monitoring

Ana Paula Rodrigues

I Kislaya[1], *AP Rodrigues*[1], *J Santos*[1], *V Gaio*[1], *AP Gil*[1], *AJ Santos*[1], *S Namorado*, *M Barreto*[1], *H Lyshol*[2], *B Nunes*[1], *C Matias Dias*[1]
[1]Department of Epidemiology, National Health Institute Doutor Ricardo Jorge, Lisbon, Portugal
[2]Norwegian Institute of Public Health, Oslo, Norway
Contact: ana.rodrigues@insa.min-saude.pt

Issue

This work addresses practices related to quality assurance in the first Portuguese National Health Examination Survey (INSEF). INSEF is a cross-sectional population-based study that combines face-to-face interview, physical examination and blood collection and aims to obtain data on 4200 participants from all 7 regions of Portugal.

To ensure accurate and high quality data, a monitoring system was implemented as part of internal quality assessment. It includes participant recruitment, physical examination, blood collection and interview and consists of:

- daily check of recruitment and participation;
- monitoring of blood pressure and anthropometric measurements by interviewer and collection site;
- monitoring blood draw, sample haemolyses and laboratory processing;
- evaluation of average time spent on each survey component by interviewer;
- daily validation of collected interview data to verify completeness and identify duplicates;
- regular contact with fieldwork teams to clarify issues raised in questionnaire administration.

For each region we carried out survey quality assessment at the end of the second week of fieldwork (N = 230 participants). Regional meetings took place to discuss assessment results and propose recommendations for improvement.

Results

Monitoring allowed identifying items in higher risk of missing data and challenging issues such as employing exclusion criteria. Proper registry of measurements and time spent were difficult for 3 out of 6 interviewers. We observed junior laboratory technicians to have higher rates of haemolysed samples, 11% compared to 2% from the most experienced.

Lessons

Monitoring of each fieldwork procedure allowed to provide on time feedback so fieldwork teams are able to implement correction actions aimed at reducing total survey error and improving survey quality.

Key messages

- Monitoring and systematic assessment of fieldwork are essential to guarantee standardized and high quality data in health surveys with physical examination
- Fieldwork teams' engagement is key to succeed in survey quality improvement

Physical and chemical qualities of Drinking Water in Rural Areas in Peja

Sabahet Tigani

A Nurboja, B Kotori, V Gafuri, F Mulhaxha Kollqaku, Sh Krasniqi
Dep of human ecology, Dep of social medicine, Dep of microbiology Institute of Pulblic Health, Peja, Kosova
Contact: s_tigani@yahoo.com

Aim

Retrospective analyze of physical and chemical qualities of drinking water in rural areas of Peja region for the period 2010 – 2014.

Material and Methods

The analyses were conducted in the chemical laboratory for water of the Regional Institute of Public Health in Peje, Department of Human Ecology.

Water samples for laboratory analyze are taken in accordance with guidelines: "Standard method for taking samples from sources of potable water" based on WHO standards and IA 2/1999 of the Ministry of Health.

Results

For the period 2010 – 2014 were done physical and chemical analyses of 1560 drinking water samples from local water systems, family wells, and sources in rural areas.

Out of 1560 samples annually there are 325 samples or 20.83% that did not meet standards of physical and chemical parameters and 1235 or 79.17% meet standards foreseen with physical and chemical parameters.

Conclusions

As most of rural areas don't consume drinking water of required quality and results show a level of chemical contamination then precaution measures to improve the quality of drinking water are priority tasks.

Key message

- Retrospective analyze of physical and chemical qualities of drinking water in rural areas of Peja region for the period 2010 – 2014

Power of strong Communities to promote health and wellbeing

Farhang Tahzib

F Tahzib[1], C Miller[2], R Gill[1], S Tabbner[1]
[1]Public Health Directorate, West Sussex County Council, UK
[2]TLAP/OPM, London, UK
Contact: farhang.tahzib@westsussex.gov.uk

Background

There is growing evidence and experience in key role of community based approaches to improve health and wellbeing. West Sussex in southeast England was selected as one of the eight areas in the Country to support development and testing of a framework for promoting health and wellbeing through strong communities and a trailblazer in embedding key issues locally.

Method

West Sussex Health and Wellbeing Board and its partners have been working with Think Local Act Personal (TLAP) and public health colleagues in reflecting, consulting and distilling the evidence and experience, supporting development of the framework and exploring implications for local actions to meet agreed outcomes.

Result

Co-production and asset based community approaches and development recognised as key issues and options explored and learning generated in embedding such issues. At time of significant fiscal constraints, reduction of budgets, and restructuring of organisations and services the approach provided opportunities for meaningful conversations, while the need for fundamental cultural issues and change in practice was recognised. A local primary care approach around "people, place and practice" was generated.

Conclusion

The TLAP framework and importantly its local interpretation and ownership provide useful approach for further acknowledgement and use of community based approaches to promote health and wellbeing and personalisation of services. There is need for change of mindsets and cultural change for effective outcomes.

Key messages

- There is growing evidence base and experience on key role of strong communities to boost health and wellbeing. TLAP framework provides valuable approach for peronalisation of services
- There is need to change mindsets and avoid dichotomies around role of individual, communities and institutions

Importance of public health reforms in decreasing pressures on emergency departments across England

Israr Haq

I Haq[1], S Haq[2]
[1]A&E, New Cross Hospital, Wolverhampton, UK
[2]Rashid Hospital, Dubai Health Authority, Dubai, United Arab Emirates
Contact: israr.haq@nhs.net

Background

This study focussed on the Accident and Emergency (A&E) departments across England which have felt increasing pressure. Visits have risen 11% within 4 years to 60,000 attendances per day. We looked at the factors that have led to this situation, what has and will happen to public health as a result, and what reforms can be introduced to rectify this issue.

Method: Data was taken from the HNS and HSCIC websites which provided the numbers of patients attending the A&E department at New Cross Hospital, a tertiary care centre located in the West Midlands in England.

Results

Minor (type 3) complaints accounted for 32% of attendances, and these have been increasing over the years. A considerable percentage were deemed inappropriate for A&E. Majors (type 1) attendances have not increased by much. A variable used to identify increased load on the department was the 4-hour patient waiting time mark. 65% of attendees were self-referred while 5% were referred by their General Practitioner (GP).

Conclusion

Lack of sufficient public health education regarding the roles of the GP and A&E; misalignment of workflow between A&E and other departments; 5-day work weeks instead of 7-day round the clock services; the '111' help-line service not doctors-led; transport delays to social/community services for A&E patients; and a lack of staff were the causes of increased workload. This may lead to: critical patients may be deprived of time/services; government healthcare budget drained; increased hospital-acquired infections; inappropriate use of resources; strain on other departments; overcrowded A&E departments becoming contagion hotspots.

Reforms recommended include: more public health; better staffing; effective alternatives to A&E for patients without acute severe illnesses; 24/7 healthcare; charge money for A&E visits that are outside the given criteria. It would be wise to consider implementation of these reforms in England as well as other countries facing such pressures.

Key messages

- The workload of A&E departments in England is increasing rapidly due to various factors and is putting a major strain on resources
- Generic reforms are needed to rectify the current situation most of which can be implemented in other nations experiencing the same crisis

Developing Evidence-Based Practical Skills - Innovative Developing Project

Eila Hirvonen

E Hirvonen[1], S Teeri[1], M Koivunen[2]
[1]Health, Satakunta University of Applied Sciences, Pori, Finland
[2]Administrative Centre Satakunta Hospital District, Pori / Department of Nursing ScienceUniversity of Turku, Finland
Contact: eila.hirvonen@samk.fi

Satakunta University of Applied Sciences is conducting a project on evidence-based practices in Social and Health Care. The project is part of the studies of the master students in the Degree Programme in Health Promotion. One partner in the project is Satakunta Hospital District and rehabilitative approach as part in developing their nursing practices. The main purpose of the project is to support the students' evidence-based practical skills and conduct a literature review on rehabilitation approach. In addition, the aim is to promote shared understanding and cooperation between actors in education and nursing practice.

The project was part of the course Assessment of Health Promotion and Evidence-Based Practice in the Degree Programme in Health Promotion. The students' project included five phases. In the first phase they formulated a PICO- question (patient – intervention – comparison - outcome). In the second phase they conducted an integrative and systematic research literature review in order to find out both evidence-based and best practices. In the third phase they evaluated research findings systematically on the basis of scientific quality requirements and research ethics. In the fourth phase the students evaluated the application of research findings into practice. In the fifth phase the students wrote a summary report on their findings.

Conclusions

During the project the students' evidence-based practical competence increased and the project helped to build up shared understanding between actors in education and practice. Satakunta Hospital District acquired knowledge of evidence-based practices and can now further develop their rehabilitation approach more innovative.

Key message

- The project supports the students' evidence-based practical skills and conducts a literature review on rehabilitation approach and shares cooperation between actors in education and nursing practice

Trends in medicines consumption in Slovenia in the period from 2003 to 2013 with recommendations

Marjetka Jelenc

M Jelenc, T Kostnapfel, A Korosec, T Albreht
Center for Health Care, National Institute of Public Health, Ljubljana, Slovenia
Contact: marjetka.jelenc@nijz.si

Issue

In the developed world, including Slovenia, medicines consumption has raised in recent years. The volume of polypharmacotherapy has raised as well, it represents a substantial health care problem and contributes significantly to an increase in adverse drug events, interactions and subsequent hospitalizations and high health care costs. Good monitoring of medicines consumption and consecutive adoption of good recommendations contribute to better management of high costs of treatment and improvement in safety.

Description of the problem

Due to longer lifetime expectancy in the decade to come, the problem of growing medicines consumption and polypharmacotherapy will become even greater. The aim of this retrospective observational study was to illustrate the trends of medicines consumption in Slovenia in the period from 2003 to 2013and the goal was to propose recommendations for the rational prescribing of medicines. The used source lies on the »Database of prescriptions for outpatients«.

Results

The research on medicines consumption in Slovenia illustrates the increasing trend of medicines consumption. The number of prescriptions increased by 21.2%. More prescriptions were issued for the medicines from the positive and intermediate list; the number of prescriptions for the medicines not covered by the compulsory health insurance did not decrease. In the observed period the total value of issued medicine has raised for about a quarter.

Lessons

With the aim to better manage high costs of treatment and undesirable side effects due to polypharmacotherapy, closer cooperation between patients, doctors and pharmacists is necessary in the future. The 19 recommendations highlighted in this research should be respected by patients and both groups of health professionals in all countries. The introduction of e-prescription with connections to the Central base of medicines will undoubtedly help to solve the problem in term of more rational prescription and use of medicines.

Key messages

- Good monitoring of medicines consumption is very useful in control and policy management, it helps to identify economic, medical and social consequences of use of medicines
- Recommendations we prepared should be respected

Differences in motivation for part-time employment between third year dental and medical students

Sergey Gatsura

S Gatsura, A Muzakaev, M Patrushev, O Gatsura
Moscow State University of Medicine and Dentistry named after A.I.Evdokimov, Moscow, Russia
Contact: svgats@mail.ru

Background

Part-time work (or "moonlighting") is a popular practice among full-time medical and dental students in many countries, but can have quite different underlying motives depending on societal and economical status, professional and personal feature of an individual student or group of students. Taking into account the importance of manual skills for dental students as compared to their colleagues in medicine, we assumed that professional motives for moonlighting are more common for future dentists. This study was designed to estimate and compare reasons for moonlighting in dental and medical students.

Methods

Anonymous questionnaires regarding demographical data, academic progress and details of moonlighting including salary and basic motivation for part-time employment of all types were distributed to 252 dental and 260 medical students doing their third year studies at the Moscow State University of Medicine and Dentistry during the 2014–2015 school years. Results were compared using t-test for continuous and chi-square test for dichotomous outcomes.

Results

206 dental and 234 medical students (response rate 81.7% vs 90.0% respectively) completed the questionnaire. The prevalence of "moonlighting" was approximately equal in dental and medical students (33.0% vs 35.1% respectively). Both groups of working students were comparable in terms of demographics and academic achievements. Dental students were significantly more likely to be employed in healthcare organizations compared to medical students (75.0% vs 25,6%, $p = 0.000$), and less likely to list making money as their leading reason for working than medical students (66.2% vs 82.9% respectively, $p = 0.018$). Dental students were significantly more likely to indicate that their main motive was to gain professional experience (61.8% vs 39.0%, $p = 0.006$). Comparison of incomes showed that significantly more dental students worked for a very little money (less than 170 Euro per month) than medical students (45.6% vs 29.3%, $p = 0.039$).

Conclusions

One third dental and medical student is employed part-time, mainly for financial reasons. Nevertheless dental students rank the possibility to gain professional experience almost equally to financial reasons for work, in contrast to medical students. This conclusion is supported by higher proportion of dental students who work for a very low salary.

Key messages

- Professional motives for moonlighting are significantly more pronounced in dental students than in medical students
- Dental students seek to gain additional professional experience more often, and often work for very little money

A systematic review of the standards of clinical audits in United Kingdom (UK) hospitals

Eunkyung Lee

E Lee[1], *C Lee*[2], *M George*[3]
[1]Brighton and Sussex Medical School, Brighton, UK
[2]Brighton and Sussex University Hospital NHS Trust, Brighton, UK
[3]Portsmouth Hospitals NHS Trust, Portsmouth, UK
Contact: jsscl825@gmail.com

Issue/problem

Clinical audits were introduced into the National Health Service (NHS) in United Kingdom (UK) in order to monitor and improve the quality of healthcare practice. Completion of audit cycles has been reported as a key element to the effectiveness of audits in improving practice.

This systematic review aims to investigate the overall quality and audit cycle completion rates in UK hospitals within the past two decades. Our secondary objective is to identify key elements that facilitated and hindered the production of a successful audit.

A literature search was conducted on EMBASE, MEDLINE, CINAHL, HMIC, TRIP database, Evidence Search, Cochrane Library and Google Scholar using keywords "audits", "audit of audits", "completion rate" and "hospitals" for years between 1994 and 2014. An additional handsearch of the indexes from relevant publications was done for additional key papers. Only UK studies relevant to the research questions were included for further review.

Our questions are:

1. What percentage of audit cycles are being completed
2. What factors are supporting or hindering the success of audit completion.

Results

Of the 1029 search results, twelve relevant publications were reviewed. A total of 877 clinical audits were analysed in these articles. Only 147 audit projects (17%) have been completed with an audit cycle. 138 (49%) out of 283 audit projects led to implementation of action plan. A number of recommendations have been made to improve the clinical audit programmes such as: audit training, careful planning of audit projects, involvement of the local audit department and senior staff, multidisciplinary approach, adequate handing over of projects to junior staff, and periodical audit reviews.

Lessons

Low completion rate is a major concern for the effectiveness of audits across UK hospitals. Evaluation of local audit practice is therefore highly recommended in the UK and other countries.

Key messages

- This systematic review identified low completion rate in UK hospitals. The lack of audit completion is detrimental to the effectiveness of audits in improving practice
- Robust audit monitoring is therefore highly recommended for continued quality improvement in the UK and other countries

Reference health related quality of life data from the Italian general population in 2015

Luciana Scalone

L Scalone[1,2], *PA Cortesi*[1,2], *LG Mantovani*[1,2], *R Ciampichini*[1,2], *G Cesana*[1]
[1]Research Centre of Public Health (CESP), University of Milano-Bicocca, Monza, Italy
[2]CHARTA Foundation, Milan, Italy
Contact: luciana.scalone@unimib.it

Background

No recent health-related quality of life (HRQoL) Italian norm, assessed with the generic questionnaire EQ-5D-3L, was available. Furthermore, norm data from the new descriptive system with 5 levels (EQ-5D-5L) was completely missing. The main objective of the present study was to assess an Italian general population reference data using both the EQ-5D-3L version and the EQ-5D-5L.

Methods

large-scale telephone survey was conducted in November 2013 on 6,800 subjects from the general population of the Lombardy region, with 9.8 million residents. They were recruited to be representative of adult population as regards age (from 18 years), gender and geographical distribution. People enrolled provide their socio-demographic data and complete the Italian version of the 5L and 3L. The EQ-5D descriptive system comprises five domains with three or five possible levels of impairments, depending on the EQ-5D version. The questionnaire has also a visual analogue scale (VAS), measuring overall HRQoL ranging from 0 (worst health state) to 100 (best health state). Descriptive analyses were performed on all sample and stratified by age and gender.

Results

participants were 48% male with a mean(SE) age of 51.9(0.21). Around half (51.3%) of the participants specified they have a paid or unpaid work, 15.8% were housewives, 6.2% students were, 5.3% idles and 26.5% retired. Overall no problems were reported by 86.5% (3L) and 84.2% (5L) with mobility, by 96.1% (3L) and 94.2% (5L) with self-care, by 88.0% (3L) and 84.9% (5L) with usual activities, by 58.4% (3L) and 52.8% (5L) with pain/discomfort, and by 66.5% (3L) and 61.7% (5L) with anxiety/depression. The mean(SE) and median VAS was 78.2(0.2) and 80. A lower quality of life was reported by female and older people.

Conclusions

Reference EQ-5D-3L and EQ-5D-5L data on the Italian general adult population are now available. These data can be used as references to assess the burden of different health conditions in terms of HRQoL.

Key messages

- HRQoL data from the Italian general population are now available
- These Italian norm values are the reference to estimate the burden of different health conditions in terms of HRQoL

Factors associated with adverse pregnancy outcomes and obstetric complications: a case control study

Shafquat Rozi

Shafquat Roz[1], *Zahid Ahmad Butt*[2], *Saba Wasim*[1], *Nida Zahid*[1]
[1]Department of Community Health Sciences, Aga Khan University, Karachi, Pakistan
[2]Department of Public Health, Al Shifa Trust Eye Hospital, Rawalpindi, Pakistan
Contact: shafquat.rozi@aku.edu

Background

Low birth weight (LBW) and still births are challenging adverse pregnancy outcomes. There may be multiple etiologies associated with adverse pregnancy outcomes and obstetric complications. Reduction of these risk factors may help to prevent such complications in a cost effective way. Hence, the objective of our study was to identify the risk factors for adverse birth outcomes and obstetric complications in Karachi, Pakistan.

Methodology

A multi-center hospital based case control study was conducted in Karachi, the largest city of Pakistan. A random sample of 1275 women coming to the gynecology & obstetric department of selected hospitals was interviewed within 48 hours of delivery from wards. Stratified sampling design was employed. Cases were women with adverse birth outcomes (preterm delivery, low birth weight, still birth, low APGAR score) and obstetric complications (antepartum hemorrhage, cesarean section etc.) while controls were female with no adverse pregnancy outcomes and no obstetric complications.

Results

The final multiple logistic regression analysis revealed that age (OR = 1.03; 95% CI: 1.0-1.1), no slits in the kitchen (Odds Ratio (OR): 2.6; 95% Confidence Interval (CI): 1.5-4.6), gravidity (OR = 0.8; 95% CI: 0.74—0.95), non-booked hospital cases (OR = 1.95; 95% CI: 1.35-2.82), history of still birth (OR = 3.9; 95% CI: 2.3-6.6), miscarriages (OR = 1.94; 95% CI: 1.3-2.9) and preterm delivery (OR = 6.01; 95% CI: 2.53- 14.28) were significantly associated with being a case as compared to control.

Conclusion

Our study suggests that women who had adverse pregnancy outcomes were more likely to have previous still births, miscarriages and were non booked cases. This indicates that pre-natal care and health education during the antenatal period might help in preventing such adverse events. Further research into specific factors responsible for adverse birth outcomes and obstetric complications is warranted.

Key message

- Interventions aimed at improving pre-natal care and health education during the antenatal period might help in preventing such adverse events

Translating the Socio-Ecological perspective into multilevel interventions for family planning

Vera Schölmerich

VLN Schölmerich[1], *I Kawachi*[2]
[1]Department of Social and Behavioral Sciences, University of Rotterdam, Rotterdam, The Netherlands
[2]Department of Social and Behavioral Sciences, Harvard School of Public Health, Harvard University, Boston, USA
Contact: vera.schoelmerich@cantab.net

Background

Recommendations are frequently made to develop preventive public health interventions that are 'multilevel'. Such interventions take explicit account of the role of environments by incorporating Socio-Ecological frameworks into their design and implementation. However, research on how public health interventions have translated these concepts into practice remains scarce. This study seeks to review the current definitions and operationalization of multilevel interventions.

Methods

First, we highlight the divergent definitions of multilevel interventions, and we show the persistent ambiguity around this term. We argue that interventions involving activities at several levels but lacking targets (i.e. objectives) to create change on more than one level have not incorporated a Socio-Ecological framework and should therefore not be considered as 'multilevel'. In a second step, this study focuses on family planning interventions to illustrate the extent to which public health interventions have successfully incorporated a Socio-Ecological framework. To this end, the 62 studies featured in Mwaikambo et al.'s 2011 systematic review on family planning interventions were re-examined.

Results and conclusion

This assessment indicates that the Socio-Ecological perspective has seldom been translated into interventions. Specifically, the majority of interventions involved some form of activity at the community and/or organizational level, yet targeted intrapersonal change as opposed to explicitly targeting environmental modification. Lastly, we argue that the theoretical framework for guiding the design of multilevel interventions remains underdeveloped. We seek to contribute to this framework by highlighting two theoretical perspectives that hold promise by being incorporated into multilevel interventions, viz. the complementarity principle and risk compensation theory.

Key messages

- Calls for multilevel interventions are often made but rarely put into practice. Multilevel interventions should seek to create change on more than one level
- The theoretical framework for multilevel interventions remains underdeveloped. Complementarity principle and risk compensation theory could contribute

BigMove mental health program: Improving capabilities, self-perceived health and quality of life

Sabina Van Der Veen

S van der Veen[1], *J Harting*[2]
[1]Research and Development, BigMove Institute, Amsterdam, The Netherlands
[2]Departement of Public Health, AMC, University of Amsterdam, Amsterdam, The Netherlands
Contact: sabina@bigmove.nu

Background

The BigMove mental health program is designed for people with multiple health problems.

The program aims to strengthen capabilities and improve the self-perceived health and quality of life. The aim of the study was to assess if and how the program achieves these goals.

Method

We conducted a mixed-methods study (2014). Before and after the program participants completed a questionnaire (N = 163). From this sample we purposively selected 10 respondents to complete a short capability questionnaire (ICECAP-A) and a semi-structured interview. They were also asked about how the program had contributed to changes in capabilities.

Results

Participants reported improvements in self-perceived health (Mean before-after = 2,80-3,29 = 0,49, ESrmc = 0,62) quality of life (Mean before-after = 4,21-4,82, ESrmc = 0,66) and active coping behaviour (Mean before-after = 2,40-2,58, ESrmc = 0,24). Respondents reported that the program improved their capabilities. Their self-knowledge and confidence in their own abilities were enlarged and the intrinsic motivation to change behaviour was strengthened. This led them to undertake more activities, maintain more social contacts and participate in society through (voluntary) work. Participants considered setting goals, exercise, play and fun and support of the group as effective program elements.

Conclusion

This evaluation indicates that the BigMove mental health program contributes to increasing capabilities and improving the self-perceived health and quality of life.

Key message

- Strengthening capabilities may be an essential element of mental health programs in order to improve health

Y.E. Poster Displays: Communication and advocacy

Energy drink consumption among young adults in Denmark

Karina Friis

K Friis[1], M Lasgaard[1,2], FB Larsen[1]
[1]CFK - Public Health and Quality Improvement, Central Denmark Region, Aarhus, Denmark
[2]Department of Psychology, Southern University of Denmark, Denmark
Contact: karina.friis@stab.rm.dk

Background

Energy drinks are beverages that are characterized by the addition of various energy-enhancing ingredients and are marketed to boost energy, decrease feelings of tiredness and enhance mental alertness and concentration. In many countries, the rapid expansion of energy drink consumption has been one of the most notable trends in the soft drinks market and health authorities have expressed concern regarding the potential health effects of energy drink consumption. The aim of this study is to estimate the prevalence of energy drink consumption and examine the associations of socio-demographic factors and health behaviour with energy drink consumption among young adults (16-24 years) in Denmark.

Methods

The study is based on a public health survey from 2010 (n = 3923). Multiple logistic regression analyses were used to analyse the association between weekly consumption of energy drink and the potential explanatory factors of interest.

Results

In total, 15.8 % of the young adults drink energy drinks on a weekly basis. Men have higher odds of weekly energy drink consumption than women. The study also shows that young age, being employed and having a low educational level are associated with weekly energy drink consumption. According to health behaviour, daily smoking, high amounts of alcohol consumption, alcoholic binge drinking and being overweight are associated with weekly energy drink consumption.

Conclusion

Compared with other European countries the prevalence of energy drink consumption is relatively low in Denmark. Energy drink consumption is typically a male phenomenon and there is a clear social gradient in the prevalence of energy drink consumption where the intake is most common among people with low levels of education. This study also shows that there is some kind of ‘add on’ effect of energy drinks, meaning that people who also use other stimulants - such as alcohol and cigarettes - are more inclined to consume energy drinks.

Key messages

- Young adults who also use other stimulants - such as alcohol and cigarettes - are more inclined to consume energy drinks
- High consumption of energy drinks is mainly a male phenomenon

Health status and quality of life of subjects treated at the Vichy Spa (France)

Marie-Pierre Sauvant-Rochat

J Virfeu, MP Sauvant-Rochat
University of Auvergne, Faculty of Pharmacy, EA 4681-Peprade, Department of Public Health and Environmental Health, Clermont-Ferrand, France
Contact: m-pierre.sauvant-rochat@udamail.fr

To date, few studies investigated the quality of life in spas. In this context, a cross-sectional study was performed to evaluate the health status, quality of life and motivations of subjects treated for rheumatic disease or metabolic diseases at the Vichy Spa (France). Socio demographic data and health status data were collected with a self-administered standardized questionnaire. Quality of life was assessed with the validated generic questionnaire MOS-SF-36.

216 subjects were included (mean age: 66.8 ± 9.3 years - male: 31% / women: 69%). The coming in cure is motivated mainly by health benefits (improvement or stabilization of the disease). After spa treatment, the majority of subjects reported an improvement in their health status, decrease of medical consultations (53.7%) and decrease of drug use (57%) (painkillers and anti-inflammatory). The quality of life for spa subjects is significantly lower than that estimated in the French population. The Physical Composite Score (PCS) and the Mental Composite Score (MCS) are respectively 22.5 ± 2.3 and 37.4 ± 2.5, but differences are shown between genders. For the psychological health, MH (Mental Health), VT (Vitality) and SF (Social Functioning) scores were significantly higher in the male population; the Mental Composite Score (MCS) follows the same trend. For the physical health, BP (Bodily Pain), RP (Role Physical) and GH (General Health) were significantly higher in the male population; but the Physical Composite Score (PCS) was significantly higher in women. For the rheumatic diseases, our results agrees with those of studies performed also with the SF-36 MOS in Italy, Spain, Hungary and Australia. For the metabolical diseases, concordance of results is shown with a Canadian study.

Spa treatment improves positively the perception of health status. Assessment of quality of life in spa can be powerful to health professionals to better answer the expectations of well-being and to provide care of patients.

Key messages

- Spa treatment can positively improve health status of patients
- Comparatively to the global French population at the same age, Vichy Spa treatments improve have vitality and mental health

Internet use for search of health-related information by patients with chronic disease

Mariusz Duplaga

M Duplaga
Department of Health Promotion, Institute of Public Health, Faculty of Health Sciences, Jagiellonian University Medical College, Krakow, Poland
Contact: mmduplag@cyfronet.pl

Background

The ehealth is perceived as a promising way for provision of health care and public health services. The use of ehealth applications by patients with chronic conditions is indicated as one of key strategies of patient empowerment and improved quality of care. The aim of the study was the identification of factors influencing the use of Internet for searching health-related information among patients suffering from chronic diseases.

Methods

Cross-sectional study was performed among patients with chronic conditions remaining in care of three University or municipal departments in Krakow, Poland. The patients recruited to the survey were provided with self-administered questionnaire exploring the use of information technologies and attitudes toward ehealth. In this report, the impact of sociodemographic factors and variables related to the burden associated with disease on Internet use for search of information about nutrition and physical activity was analysed.

Results

FInal analysis was carried out on the data from 395 questionnaires remaining after quality check. The Internet was used by 60.3% of respondents. Among them, 35.7% used the Internet for search of information about nutrition and 23.1% about physical activity. Internet use for search of information about nutrition depended (chi2 Pearson test) on age category ($p = 0.055$), level of education ($p = 0.006$) and place of residence ($p = 0.028$). Internet use for search of information about physical activity was related only to level of education ($p = 0.006$). Interestingly, burden related to chronic disease (the number of chronic diseases, hospitalisation due to chronic disease, duration of chronic disease) did not impact Internet use for accessing health-related information.

Conclusions

Sociodemographic factors exert the impact on the use of Internet for searching health-related information. It seems that burden related to chronic disease does influence individual search strategies.

Key message

- The use of the Internet for search of health related information dependents mainly on the level of education and to lower degree to other sociodemographic factors like place of residence and age

Qualitative analysis of determinants of measles, mumps, rubella vaccine uptake in European parents

Garden Tabacchi

G Tabacchi, C Costantino, G Napoli, V Marchese, V Malerba, A Casuccio, F Vitale, the ESCULAPIO working group
Department of Sciences for Health Promotion and Mother Child Care ''G.D'Alessandro'', University of Palermo, Palermo, Italy
Contact: tabacchi.garden@libero.it

Background

Parental concerns about measles, mumps and rubella (MMR) vaccination negatively influence decision to vaccinate their children, this leading to the recently reported vaccine coverage drop in Europe. The ESCULAPIO project, funded by the Italian National Centre for Disease Prevention and Control of the Ministry of Health (CCM), is investigating the main factors underlying decisions on vaccinations, in order to implement targeted campaigns and plan effective strategies.

Methods

A systematic literature review was carried out on studies describing the determinants underlying MMR vaccination uptake in European parents.

Results

A total of 45 studies were included in the analysis. The most common factors related with MMR vaccine uptake were knowledge, beliefs, perceptions on vaccines and diseases, reported in 44,4% of the articles. Parents showed doubts on vaccine efficacy, safety, side effects, while in other studies positive beliefs and perceptions were reported. Attitudes/behaviours were often determinants of the uptake as well as demographic factors (40%). While higher no. of children in the household, lower income, temporary or lacking employment, and non-regular marital status were generally a barrier for vaccination, education level and house tenure were contradictory. Information source/advice and influence or trust of other people, institutions, media were often reported (31,1% and 17,8% respectively), but a clear direction was not showed.

Conclusions

These preliminary findings showed that communication strategies should provide parents with clear messages on vaccines and preventable infectious diseases, in order to build right knowledge and create correct beliefs and behaviours. Communication should be addressed mainly to more disadvantaged, larger and non-regular families. A quantitative analysis is been currently carrying out and will provide more information on the direction of the effect of the different factors.

Key messages

- Improved communication strategies and interventions on MMR vaccine and diseases are needed to build clear and correct knowledge in parents
- Communication interventions on MMR vaccine and diseases should be addressed mainly to more disadvantaged, larger and non-regular families

D-NET - Connecting Diabetes Professionals Worldwide

Daniela Chinnici

J Garst, D Chaney, D Chinnici
International Diabetes Federation, Brussels, Belgium
Contact: jilde.garst@idf.org

Background

Improving the health outcomes for people with diabetes is one of the strategic goals of IDF. As indicated in the literature, online education resources can support the growing demand for education for health professionals in diabetes.

Objectives: D-NET was launched by the International Diabetes Federation (IDF) in September 2010 as an international diabetes education network for health professionals. Since then D-NET has grown into an online network of more than 2200 members. In 2015 the platform was completely redesigned and re-launched to better fit the needs of its members. D-NET provides its members with bi-weekly discussions led by international experts, an interactive library and a global event calendar.

Results

In 2014 using D-NET member database and IDF channels, health professionals completed a survey about their needs for educational resources in diabetes. The survey was available in English and Spanish. 248 respondents completed the survey, representing 61 countries from all seven IDF regions, 182 English speaking and 66 Spanish speaking. Over 50% of respondents indicated that they had worked in diabetes less than 10 years, and 136 were D-NET users compared to 112 non-users. Over 75% of the D-NET users indicated being satisfied with D-NET, although indicating barriers such as time constraints and navigation issues. Over 80% of nonusers indicated not using online platforms for sharing with other professionals, but over 90% of non-users indicated that an online discussion platform could help in their daily work. Both user group and non-user group indicated 'diabetes self-management education' as the most interesting topic to discuss on D-NET.

Conclusions

The survey results confirm the need for an online resource platform. Insights from the survey in specific needs and facilitators/barriers for use of an online platform will help IDF in redesigning D-NET and developing online education materials. Besides providing education materials, D-NET will allow health professionals to share their concerns and priorities in diabetes care, so the Member Associations of the International Diabetes Federation can together act upon these matters. As a member of D-NET diabetes professionals who are interested in improving their practice can share and learn from other professionals from around the globe.

Key messages

- D-NET is the leading online network for health professionals working in diabetes
- Online education for health professionals can improve the health outcomes for people with diabetes

Risk definitions - risk research is done in multiple disciplines; but is it multidisciplinary?

Gabriele Berg-Beckhoff

G Berg-Beckhoff[1], *P Wiedemann*[2,3], *B Ádám*[4], *J Schüz*[5], *K Breum Ølgaard*[6], *P Tanggaard Andersen*[1], *S Ndugwa Kabwama*[1], *J Nielsen*[7]
[1]Unit for Health Promotion Research, University of Southern Denmark
[2]Science forum EMF, Berlin, Germany
[3]University of Wollongong, Australia
[4]Institute of Public Health, College of Medicine and Health Sciences, United Arab Emirates University, United Arab Emirates
[5]Section of Environment and Radiation, International Agency for Research on Cancer (IARC), France
[6]Department of Civil Engineering, Aalborg University, Denmark
[7]Research Unit for General Practice, University of Southern Denmark, Denmark
Contact: gberg-beckhoff@health.sdu.dk

Background

The aim of the project was to assess the definitions of hazard, risk, and their assessment used in different scientific disciplines and to give examples of the potential implications in the scientific discussions as well as in risk communication.

Method

The following disciplines were involved: public health, psychology, environmental health, occupational health, engineering, sociology and medicine. From each discipline a scientist was asked to present their own views on the given topics. Questions were developed together to get comparable responses from participants.

Result: The surprising result was that, when working together, pre-given major differences disappeared. Hazard is an adverse event or condition, mostly expressed in qualitative terms. For most risk definitions probability and severity are both important aspects and often a quantification of risk is desired, whereas risk perception is seen as a subjective appraisal and a cognitive construct.

Discussion

Risk perceptions are based on a combination of knowledge and individual values and affects; therefore risk perceptions may not provide a reliable guidance for risk management decisions on a societal level. The subjective and value laden risk perception raises the question how to objectively assess risk, in spite of the fact that the hazard may have been established.

Main messages

Discipline differences are small and mainly connected to the usage of terminology and interpretation of key concepts. For dealing with controversies in science, a common terminology and standardized and transparent risk assessment framework are important.

Key message

- Differences in risk definitions between disciplines are small and mainly connected to the usage of terminology. Common terminology and standardized and transparent risk assessment are important

Patient organisations for rare diseases in Italy in 2013: the importance of their empowerment

Francesca Menegazzo

L Pastori, F Menegazzo, L Salmaso, M De Lorenzi, P Facchin, Italian National Interregional Board on Rare Diseases
Coordinating Centre for Rare Diseases of the Veneto Region, University of the Study of Padova, Padova, Italy
Contact: laura.pastori@yahoo.it

Background

The European Council Recommendations of 2009 in the field of rare diseases (RD) focus on empowerment of patient organizations (PO) and call on Member States to consult patients' representatives on the policy to adopt in this field. Aim of the project is to analyse the situation of PO in Italy and to evaluate if they are suitable to represent adequately patients, reporting their health and care needs, in order to relate with institutions.

Methods

In 2013 each Italian Region responded to an analytic and specifically designed questionnaire for a census of the RD PO. In this questionnaire each PO described legal administrative and organisational aspects, purpose and activities.

Results

In Italy there are 695 PO: 584 (84%) have only one seat and 111 (16%) have multiple branches, for a total amount of 1079. Most of them does not communicate with each other and carries out different activities. The PO territorial distribution is not uniform (from 0.3 to 7.3 branches per 100,000 inhabitants). Most of the PO have a low number of members: 35% have less than 20 members, 40% between 20 and 100 and only 25% more than 100. The main topics of the PO are exclusively RD for 487 PO (77%), both rare and not-rare diseases for 144 PO (23%). There are several PO that follow the same group of rare disease.

Conclusions

In Italy PO represent a large number of RD. Their strength is the wide range of services offered to patients and their families. Weaknesses are the extreme fragmentation of PO and the lack of communication between different PO and also between branches of the same PO. This project highlights the necessity to support the aggregation, the coordination and the cooperation of RD PO to strengthen their knowledge, experience, permanency, independence, representativeness and collaboration with the institutions.

Key messages

- It is necessary to verify the representativeness of patient organisations and support their empowerment so that they can cooperate with institutions to set out shared rare diseases policies in EU
- Empowerment of patient organisations requires supporting their aggregation and cooperation to strengthen their permanency, independence, representativeness and collaboration with institutions

The on-line Concussion Awareness Training Tool (CATT)

Shelina Babul

S Babul, I Pike, K Turcotte
University of British Columbia, Canada; BC Injury Research and Prevention Unit, Vancouver, Canada
Contact: sbabul@cw.bc.ca

Issue

Effects of concussion vary among patients and can greatly affect quality of life. Long-term effects are often not recognized early enough to prevent post-concussion syndrome and permanent brain damage, leading to an impact on social and professional lives.

Problem

There is need for an accessible, up-to-date, online concussion resource based upon the Zurich Consensus Statement on

Concussion in Sport. The Concussion Awareness Training Tool (CATT-www.cattonline.com) includes three distinct sites for Medical Professionals–MP, Parents, Players & Coaches–PPC, and Educators–Ed. Each site includes a self-paced learning module and tailored resources. CATT MP supports standardize practice in a clinical setting with a focus on the paediatric patient; PPC addresses identification and management; Ed includes resources for those working with children in the school setting. A pre-post intervention survey design was used to evaluate each CATT site, to answer the question: Can CATT change concussion knowledge/attitudes/practices?

Results

CATT MP was launched mid April 2013. Physicians demonstrated significant positive change in practices ($p = 0.001$) and significant change in knowledge by those treating more than 10 concussions/yr ($p = 0.039$). Nurses had significant positive change in practices ($p = 0.005$) and attitudes ($p = 0.035$). CATT PPC was launched mid June 2014. Parents demonstrated significant positive change in knowledge ($p = 0.002$). CATT Ed is anticipated for launch in May 2015, with an accompanying evaluation.

Lessons

Despite rising concussion awareness, standardized practices have not been widely implemented. Concussion recognition is imperative to influence the extent of damage and recovery from this injury. Public Health can address this gap by promoting concussion training.

Key message

- Concussion is under-recognized, -diagnosed and -treated; CATT can address this gap
- Good concussion management can reduce related health problems and the risk of long-term brain damage

Students' social networks and vaccination: results from the 'VacciniAmo le Scuole' project

Andrea Poscia

A Poscia[1], EM Frisicale[1], DI La Milia[1], D Mascia[1], V Iacopino[1], P Parente[1], C Cadeddu[1], F Kheiraoui[1], FA Distefano[1], S Bartolucci[1], J Ungari[1], A Spadea[2], S Palmeri[3], E Moliterni[4], W Mazzucco[3], ML Mangia[5], A Iacovelli[6], A Fraioli[7], C D'angelo[8], AM D'Amici[2], N Casuccio[8], V Bonanno[3], C Annona[4], S Boccia[1], W Ricciardi[1]

[1]Public Health Department. Università Cattolica del Sacro Cuore di Roma, Roma, Italy

[2]U.O.S. Medicina Preventiva per l'età Evolutiva 4° Distretto, ASL RMA, Italy

[3]Department of Scienze per la Promozione della Salute e Materno-Infantile 'Giuseppe D'Alessandro, Università degli Studi di Palermo, Italy

[4]U.O. Igiene, Epidemiologia e Sanità Pubblica, ASM Matera, Italy

[5]U.O.C. Medicina Preventiva per l'età Evolutiva, ASL RMB, Italy

[6]U.O.S. Medicina Preventiva per l'età Evolutiva 3° Distretto, ASL RMB, Italy

[7]U.O.S. Medicina Preventiva per l'età Evolutiva 2° Distretto, ASL RMB, Italy

[8]U.O.C. Sanità Pubblica, Epidemiologia e Medicina Preventiva, ASP Palermo, Italy

Contact: andrea.poscia@edu.rm.unicatt.it

Background

Social and friendship networks were found to be associated with many health related outcomes; vaccination behaviour has been rarely analysed yet. Schools are social structures where adolescents establish and develop network ties; at the same time, they are places in which health promotion interventions are primarily targeted. We aimed at exploring the relationship between young students' vaccination health choices and their social networks (SN).

Methods

'VacciniAmo Le Scuole' project was performed in four Italian secondary schools, in collaboration with the Local Health Units to which they administratively pertain. We administered a questionnaire to students and their parents in order to collect data on demographics, knowledge and attitudes about vaccinations, their immunization status and students' SN. SN analysis comprises a set of tools and techniques aimed at exploring the structural properties of SN. At the time of the submission, data were available only for one school and we specifically applied the multiple regression quadratic assignment procedure (MR-QAP) by regressing students' immunization status similarity as dependent variable on variables that represent students' SN within and outside the school. Several covariates were taken into account and other possible factors which may explain vaccination behaviour similarities were ruled out.

Results

49 pupils and 60 parents fulfilled the questionnaire; 46 students' responses could be matched with their respective parents' replies. MR-QAP findings indicate that students' immunization status similarity was significantly associated with social ties established outside the school. Moreover, it is more similar for those students having the same general practitioner.

Conclusions

Once established with other students inside schools, pupils maintain and further develop some social ties, through which they likely share information and knowledge about health behaviours outside schools.

Key messages

- Social ties among students are positively associated with their immunization status
- Understanding network ties among scholar mates outside schools is important to implement effective vaccination strategies

Maternal exposure to benzene and PM10 during pregnancy influences the risk of congenital anomalies

Carlotta Malagoli

C Malagoli[1], M Malavolti[1], A Cherubini[2], G Maffeis[2], R Rodolfi[3], G Astolfi[4], E Calzolari[4], F Nicolini[3], M Vinceti[1]

[1]CREAGEN - Environmental, Genetic and Nutritional Epidemiology Research Center, University of Modena and Reggio Emilia, Modena, Italy

[2]Terraria s.r.l., Milan, Italy

[3]Local Health Unit of Reggio Emilia, Reggio Emilia, Italy

[4]IMER Registry, Medical Genetics Section, University of Ferrara, Ferrara, Italy

Contact: carlotta.malagoli@unimore.it

Background

We aimed to investigate whether maternal exposure to PM10 and benzene from vehicular traffic in early gestation may contribute to risk of birth defects, through a population-based case-control study using a Geographical Information System (GIS) and a pollutant dispersion model to estimate exposure.

Methods

Cases with anomalies were selected in the offspring or in aborted fetuses among women residing in Reggio Emilia (150,000 inhabitants), northern Italy, from 1998 through 2006. We included all congenital anomalies reported to the population-based registry of birth defects, IMER, part of the European Surveillance of Congenital Anomalies network, EUROCAT. As a control group we randomly selected a healthy newborn for each case, using maternal age, year and hospital of delivery or abortion as matching variables. Using the atmospheric dispersion model Caline4, based on meteorological data and motorized traffic flow parameters, we estimated average exposure to PM10 and benzene at the maternal residence in the first trimester of pregnancy.

Results

We identified 228 cases of birth defects: 183 live- and still births and 45 induced abortions with single or multiple anomalies. We observed an increased risk for birth defects related to increasing maternal exposure to PM10, odds ratio (OR) = 1.12, 95% confidence interval (CI) 0.99-1.26 (P trend 0.073) after adjusting for benzene exposure. Muscoloskeletal and chromosomal defects, in particular the Down's syndrome, were the most affected by PM10 exposure with OR = 1.34, 95%CI 0.94-1.92 (P trend 0.106), OR = 1.52, 95%CI 0.98-2.36 (P trend 0.060) and OR = 2.30, 95%CI 0.92-5.74 (P trend 0.074), respectively. A weak association between benzene exposure and nervous system defects (OR = 3.50, 95%CI 0.26-47.14, P trend 0.344) also emerged.

Conclusions

The study suggest that maternal exposure to PM10 from vehicular traffic during early pregnancy is related to the risk of birth defects, in particular chromosomal and musculoskeletal anomalies.

Key messages

- The study suggest that maternal exposure to PM10 from vehicular traffic during early pregnancy is related to the risk of birth defects, in particular chromosomal and musculoskeletal anomalies
- Our study is important for health protection of the pregnant woman and her child

Visualization practices in Urban Health

Timothy McCall

T McCall, C Hornberg, R Fehr
Faculty of Health Science, Bielefeld University, Bielefeld, Germany
Contact: timothy.mc_call@uni-bielefeld.de

Issue/problem

Urbanization affects human health in various ways. Concerning health in urban settings, scores of different disciplines and sectors need to work together. For urban decision-making, it is crucial to convey relevant (textual and numerical) information - often in a short period of time. For improving the efficiency of communication on Urban Health (UH) issues, visualization can be employed. We want to evaluate the so far unexplored current status of visualization in UH.

This study aims to analyze the content and types of visualization found in consolidated UH literature. Therefor we identified a set of English-language handbooks of Urban Health and, following an agreed protocol, documented (cross-checked) the visual materials used in there.

Preliminary Results

In total 12 recent (2005 onwards) handbooks plus one early reference handbook (1963) for comparison were identified. On 4700 + pages, c. 440 figures were found, then classified with respect to type, temporal and spatial reference, and topic. While the average number of book pages tended to decrease over time by more than a third, the average number of figures increased strongly. Around 2011, the ratio of figures per pages took a clear step upwards. A preliminary typology includes: statistical and schematic/conceptual diagrams, (thematic) maps, reproductions, drawings and photos. Composite ensembles are used in creative ways. Comprehensive topics represent e. g. social gradients, community activities, and political commitment for health.

Lessons

Visualization is now a common feature in the UH literature; however, in practice it focuses on a limited subset of the available options. It seems recommendable to make broader use of the full spectrum of options. Questions for subsequent steps: How do different target groups respond to visual elements in UH? Can visual elements be shown to improve the understanding/ readiness to integrate health issues into urban decision-making?

Key messages

- In times of global urbanization, Urban Health practice needs most efficient ways of communication with multiple stakeholders
- Based on this analysis of Urban Health literature, the role of visual communication can and should be extended, in order to exploit the opportunities of promoting and protecting human health

Urban Health practice in Hamburg (Germany) – Integrated view to support futureproofing the city

Rainer Fehr

R Fehr[1], KP Stender[2], R Fertmann[2], N Lettau[3], A Trojan[4], C Hornberg[1]
[1]Fakultaet fuer Gesundheitswissenschaften, Universitaet Bielefeld, Germany,
[2]Gesundheitsbehoerde Hamburg, Germany,
[3]formerly Gesundheitsbehoerde Hamburg, Germany,
[4]Medizinische Fakultaet, Universitaet Hamburg, Germany
Contact: rainer.fehr@uni-bielefeld.de

Issue/problem

Today's cities are complex entities challenging adequate governance in all sectors. In urban mass media and public debate, human health mostly remains a hidden topic except for crises or scandals. Sound efforts like the Healthy Cities Network have not succeeded yet in establishing broad and adequate awareness of urban health. To strengthen the topic in urban debate, a fresh, locally adjusted view into past, present and future is needed.

Description of the problem

In a city like Hamburg (pop 1.7 million), a multitude of actors and activities deal with health and disease. A group was formed including experts from the health agency and from academia for developing an integrated view on past and current Urban Health practice in Hamburg. Project questions refer to sources to build on; contents to cover; structuring concepts; analysis and presentation of key materials.

Conclusions

to draw; and securing future access to sources.

Results

Sources identified range from institutional reports, official statistics, legal / policy documents to existing (historical and current) specific analyses. Some are undisputed and accessible like multiple Hamburg health reports, local cancer registry analyses, and community project reports. Additional information is tucked into publications with broader scope, e.g. Hamburg lexica. A combination of historical and systematic (''health in all policies'') structure was chosen as best applicable, using the Ottawa conference 1986 as reference.

Lessons

Preliminary observations include the early onset of local health reporting; the considerable number of government sectors featuring their own health divisions; and the broad thrust of two cooperative structures with 100+ institutional members each. Lessons from both former and current developments contribute to developing futureproof strategies, e.g. for anchoring health in city planning. Moreover, the experiences (''footprints'') from the past should be treasured for future reference.

Key messages

- In current urban public debate, human health deserves prominence beyond times of crisis; for strengthening health, a fresh and integrated, locally adjusted view on ''health in the city'' is needed
- To save the (information) footprints of local Urban Health activities for the future – in print or electronically – deserves and requires specific efforts to be taken

Determination of opinions about tobacco and electronic cigarette health school students

Funda Özpulat

F Özpulat[1], D Öztaş[2], N Bilir[3]
[1]Selçuk University Aksehir Kadir Yallagöz School of Health, Konya, Turkey
[2]Ankara University Faculty of Health Science, Ankara, Turkey
[3]Hacettepe University, Institute of Public Health, Ankara, Turkey
Contact: funda-ozpulat@hotmail.com

Background

Electronic cigarettes is widely used in recent years as alternative to tobacco use. Determination of opinion about the electronic cigarette is very important.

Purpose: The aim of this study was to determine of opinions about tabocco products and electronic cigarette on health school of college students.

Methods

This research was conducted with Akşehir health school of college students department of nutrition and dietetics and nursing students. For statistical analysis proportion, chi-square and Fisherexact tests were used. The level of statistical analysis significance was taken $p < 0.05$.

Results

The sample of this research consist of 107 man, 345 women so totally 452 persons.

The participants of 73% cigarette, 98.2% pipe, 93% cigar, 99.3%. hookah was never used by students. The statistical relation was found between hear of the electronic cigarette and status of smoking (<0.005). Non-users cigarette of %17.6 and user of cigarette %38.5 didn't participate of view ''individuals starts smoke cigarette easily via hookah'', the statistical relation was found between the status of cigarette and the influence of addictive effect of hookah (<0.05). Non-users cigarette of 35.8% stated that they disagreed with ''electronic cigarette is easy to lead start using cigarette'' view, this rate rises to 80.0% for smokers (<0.05).

Conclusions

The use of tobbaco products and electronic cigarette is low between students. The students haven't enough knowledge about using electronic cigarette.

Key message

- We think that this research is reflection about electronic cigarette and tabocco products of students views. So we haven't meet like as this research in Turkey

Patient perspectives on a personally controlled electronic health record used in regional Australia

Stephen Gill

L Hanna[1], SD Gill[2], L Newstead[1], M Hawkins[1], RH Osbourne[1]
[1]School of Health and Social Development, Deakin University, Australia
[2]Barwon Health and Deakin University, Australia
Contact: lisa.hanna@deakin.edu.au

Background

Personally controlled electronic health records (PCEHR) are being implemented throughout the world to enable shared decision making between patients and healthcare providers, and improve the timeliness and accuracy of information sharing between healthcare providers. However, few studies have investigated patients' experiences using a PCEHR. The current study explored patients' experiences and perspectives of using a PCEHR implemented in an Australian health service.

Method

Twelve patients completed an individual in-depth semi-structured telephone interview to determine their experiences of, and perspectives about PCEHRs. Interviews were audio recorded, transcribed verbatim and analysed thematically using software for qualitative data analysis.

Results

Participants described two main interdependent advantages of PCEHRs: improved quality of health care through better information sharing, and enhanced patient capacity for self-management. Participants wanted their PCEHR to be a centralised, comprehensive repository of all relevant patient health information that could assist disparate healthcare providers to understand their healthcare history. Participants believed that a single repository of trusted information was particularly useful if the patient was seeing a healthcare provider for the first time and had complex or critical healthcare needs. The PCEHR reduced the imposition on patients to remember and repeat their medical history, and was perceived to improve the accuracy of communication between healthcare providers by removing patient recall bias and error. Participants also felt the PCEHR had the potential to reduce costs to an overburdened health system by ensuring clear and timely communication between practitioners, and between practitioner and patient, thereby avoiding unnecessary investigations and appointments. To realise these advantages, widespread acceptance and use of PCEHRs by healthcare providers is required, and PCEHRs need to be simple to use and accessible.

Conclusions

PCEHRs can produce tangible benefits for patients. However, maximum benefits will be realised when PCEHRs contain a complete collection of relevant health information, are widely used by healthcare providers, and are carefully designed for easy use.

Key message

- PCEHRs can produce tangible benefits for patients
- Widespread use of PCEHRs by healthcare providers is required to realise PCEHRs potential benefits

Governing for Health: a Portuguese experience

Paula Serdoura

C Teixeira, M Felício, P Serdoura, V Machado
Northern Region Health Administration's Public Health Department, Porto, Portugal
Contact: paulaserdoura@gmail.com

Background

Governance for Health (GFH) is about the pursuit of health and wellbeing through both a 'whole-of-government' and a 'whole-of-society'approach. Public health professionals and services have a unique role to play in promoting the process of GFH at the local level. In Portugal, public health professionals work at public health units (PHU), at the Primary Health Care Groups-PHCG (average: 200.000 residents). Since 2007, Portugal's Northern Region-PNR (3.7 million residents) Public Health Department (PHD) has developed several health information and communication tools in order to create an evidence base for population health planning. Since 2011, an instrument for population based health planning, the Local Health Plan (LHP), has been implemented by the PNR's 24 PHCG, under the PHU's technical lead. This study presents the main results of the evaluation of this process.

Methods

In 2012 an evaluation of the LHP buildup process was carried out, using an internal evaluation instrument (applied by each PHU) and an external evaluation tool, applied by PNR's PHD. In 2014 an evaluation of the LHP implementation process was carried out, using a check-list applied by both the PHU (internal evaluation) and the PHD (external evaluation).

Results

All 24 PNR's PHCG have a LHP, in different implementation stages. When evaluating the quality of the LHP's buildup process, 17(71%) had a score >50%;15(63%) involved the internal stakeholders and 12(50%) also involved the community stakeholders. In 17(71%) PHCG, local commissioning indicators were aligned with the LHP's prioritized health needs(9 PHCG in 2012). In 15(63%) PHCG, its Action Plans were aligned with LHP's health needs(7 PHCG in 2012). In, at least, 10(42%) PHCG, community stakeholders' Action Plans were also aligned with LHP's health needs.

Conclusions

GFH is the path to the co-production of better health and well-being. Portuguese LHPs have proved to be effective instruments of GFH at the local level, putting population health needs in the different sectors' agendas.

Key messages

- Public health professionals/services play a central role in promoting an effective GFH at the local level
- The ''Local Health Plan'' is an effective instrument of GFH at the local level, putting population health needs in the different sectors' agendas

Beyond GFATM funding – is Republic of Macedonia up to the challenge to fight TB and HIV?

Dance Gudeva Nikovska

D Iliev, K Soleski, H Jankulovski
TB Coalition Macedonia, NGO Healthy Options Projecy Skopje, Macedonia
Contact: dgnikovska@gmail.com

Republic of Macedonia (RM) have received funding from Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria (GFATM) funds and is implementing activities since 2004 (HIV/AIDS) and 2006 (TB), the Ministry of Health being a

Principle Recipient of the grant funds and numerous government and non-government organizations acting as secondary recipients working with most vulnerable communities. Both programs have developed activities that were not previously funded by the Government, complying with state-of-art recommendations embedded in international organizations' recommended action plans, which, in turn, has resulted in keeping HIV prevalence low and even more remarkable results in TB control, reducing TB incidence from 28/100.000 in 2006 to 15.2/100.000 in 2014. Involvement of NGOs in TB control program has proved crucial for reaching most vulnerable groups and partnerships built over the past 10 years are a blueprint of successful collaboration among Government and non-governmental sector.

However, the country is now faced with the challenge to sustain established activities, given that classification as a high-middle income country makes RM no longer eligible for GFATM funding. While the country officials have made initial steps to face the challenge, such as establishment of National Task Force to develop sustainability plan, there are major challenges that are to be faced in the year to come:

- Long-lasting transition and health care reforms, making the process long and unpredictable, with frequent changes of policy makers, setting different priorities within each Minister's mandate.
- Absence of system of health accounts, thus the challenge to estimate total funds required for both TB and HIV.
- Primary health care not involved in the specialized TB control program, although respiratory diseases are responsible for a considerable burden of suffering and death in all age groups.
- Absence of integrated health information system and inadequate reporting of infectious diseases, R&R system is paper based, causing delays in notification of cases and incomplete reporting.
- Impaired access to health services, given the high unemployment rate of almost 40%.

The challenge is immense, enthusiasm of professionals even bigger. Anyway, the country has to make enormous efforts to take the challenge next year!

Key messages

- Sustainability of GFATM funded activities on HIV and TB are a great challenge for RM
- Collaboration between Government and NGO sector is crucial for sustaining TB and HIV epidemics

Participatory action research in planning for health at local level: Case study Kosovo

Drita Salihu Zajmi

D Salihu Zajmi[1], *M Berisha*[1], *I Begolli*[1], *N Ramadani*[1], *G Pavlekovic*[1]
[1]National Institute of Pubčic Health of Kosovo and Medical Faculty University of Pristina, Kosovo
[2]Andriuja Stampar School of Public Health, School of Medicine, Univeristy of Zagreb, Croatia
Contact: dritasalihu@yahoo.com

Background

Last years there were a plethora of international projects supporting development in different governmental sectors as well as in civil society in Kosovo. Majority of these projects were (and still are) very important and useful in solving local needs, or initiating the process of creating new ways for local people. This is one very important strengths, local professionals in different field learned more and being well trained in certain areas. On the other hand, it is a weakness: „copy-paste" and transfer model of good practice from abroad usually does not empower local capacities and used „paternalistic" approach. Therefore, the program „Planning for health" at local levels was developed and implemented since September 2014 in seven regions in Kosovo.

Methods

This paper presents methods, experiences and outcomes of the Program aiming to assist regions to asses local health needs in participative manner, select priorities and plan for health. Program incorporates a multi-disciplinary and inter-sectoral approach, consultation with community („bottom-up approach") and use of qualitative analysis (RAP).

Results

Program increased regional-level capacities to conduct health planning and has successfully engaged local stakeholders from political, executive and technical sectors. It involved variety of local group's (youth, unemployed, farmers, housewives, rural and urban families, etc.) as well as professionals from health and social welfare sectors, education, religions, policy-makers, media, etc.

Conclusions

Regional Health Profiles gave the essential quanitative and qualitative data on health needs and health priorities in local communities and are the basic document in planning for health for local government and local professionals.

Key message

- Participatory action research (with Regional Health Profile and Action Plan as outcomes) is a community empowering method in developing public health work in decentralized system

Summary of environmental burden of disease and health care costs analyses for policy advising

Myriam Tobollik

M Tobollik[1,2], *N Steckling*[1], *H Mertes*[1], *T Claßen*[1], *J Popp*[3], *G Paetzelt*[3], *A Conrad*[2], *D Plaß*[2], *C Hornberg*[1], *D Wintermeyer*[2]
[1]Bielefeld University, School of Public Health, Department Environment & Health, Bielefeld Germany
[2]Federal Environment Agency (UBA), Section for Exposure Assessment and Environmental Health Indicators, Berlin, Germany
[3]Hamburg University of Applied Sciences (HAW), Faculty of Life Sciences, Department Health Sciences, Hamburg, Germany
Contact: myriam.tobollik@uba.de

Background

The results of environmental burden of disease (EBD) and environmental health care costs (EHCC) analyses can be used to support political decision-making processes in the field of environmental health. The GEniUS project (full title: Environmental burden of disease and public health economics in environmental protection) aims at developing a comprehensive database, which gathers and evaluates international EBD and EHCC analyses.

Methods

A systematic literature review of studies for 40 biological, chemical and physical risk factors relevant for Germany was performed. The identified publications were comprehensively recorded into a database and evaluated in terms of quality and transferability to the situation in Germany. Moreover, the information included in the database was evaluated regarding study limitations and research gaps.

Results

42 EBD and 44 EHCC studies were found and essential information was summarized in the database. For some stressors (e. g. air pollution, mould and dampness, noise and metals) several analyses were found. Whereas for many of the stressors no EBD or EHCC analyses were identified (e. g. perfluorinated compounds, insecticides or plasticizers). For most hydrocarbons EBD results were available, but no quantifications of attributable costs were found.

Conclusions

The EBD and EHCC analyses available are very heterogeneous regarding quality and used methodology. For many stressors analyses are missing, and quantified stressors show large differences in the results due to incomplete information (e. g. health data, exposure-response functions) and methodological shortcomings. The GEniUS project can support further research in this area by giving an overview about the current state of research and vice versa main knowledge gaps.

The project was funded by the German Federal Ministry of Environment, Nature Conservation, Building and Nuclear Safety (BMUB).

Key messages

- Information on environmental burden of disease and environmental health care costs studies was gathered in a database to support policy consulting
- Main research gaps and needs were identified

The importance of partnership for regional health policy implementation in Lithuania

Irena Miseviciene

I Miseviciene, R Zekas
Lithuanian Sports University, Kaunas region municipality, Kaunas, Lithuania
Contact: irena.miseviciene@lsu.lt

Revitalization of regional health policy (HP) implementation in Lithuania is an example of successful participatory approach of all relevant partners. Kaunas region was the member of WHO coordinated Regions for Health Network (RHN) in 2003–2009. After administrative shake-up of regional structure of Lithuania by government in 2010, Kaunas region terminate its membership in RHN.

The success of any health related project depends on the participation of relevant partners such as health professionals, health care services' administrators, community, academia staff, representatives of other sectors, politicians and existing conducive national HP. The case of revitalization of Kaunas RHN demonstrates the importance of the presence of the steering group and effectiveness of involvement of above mentioned partners into participatory process of RHN aims implementation. The new Health program for 2014–2025 based on the main strategies of "Health 2020" was approved by Lithuanian parliament. The decrease of health inequalities with involvement of different sectors for health promotion and disease prevention are the main aims of Health program. The steering group, consisting of three persons - Kaunas region municipality chief-physician, university professor of public health (leader of several health related research projects, member of National Health board) and ex-officio WHO representative for Lithuania – prepared a draft report for Regional Health policy implementation and presented for the Strategic development Council of Kaunas region. The council accepted the proposal to renew the membership of RHN and approved the working group for coordination of regional HP implementation and stimulation of intersectoral collaboration. The strategic priorities of regional health policy are – health inequities, creation of active communities oriented to the healthy lifestyle and patient oriented primary health services providing effective NCDs prevention program.

Successful revitalization and implementation of regional HP can be initiated by steering group, having not only professional competencies for strategic HP documents preparation, but also managerial competencies and experiences to work in inter-professional and intersectoal groups. Close collaboration with WHO can be evaluated as added value of such public health action in Lithuania.

Key message

- Importance of participatory process in regional heath policy implementation

Change your habits - improve your health

Marina Kuzman

M Kuzman[1], Z Sostar[1], D Jurakic[3]
[1]Teaching institute of public health 'Dr. Andrija Stampar', Zagreb, Croatia
[2]Faculty of kinesiology, Zagreb, Croatia
Contact: marina.kuzman@stampar.hr

Overweight and obesity are well known public health problem in many developed countries, Croatia not being exception. The complex origin of the problem includes genes and environmental challenges and therefore demands multisectoral approach.

„Change your habits – improve your health" is public health initiative undertaken in the City of Zagreb in 2015. The long term goal of the action was to promote and improve healthier diet and to enable population oriented physical activity, avoiding the term „obesity". The inovation of the approach was involvement of a great variation of the stakeholders - including local Teaching institute of public health „Dr. Andrija Stampar", city government offices responsible for health and education, Red cross and Faculty of kinesiology. The partner in the initiative was TV channel (RTL), which closely followed and regularly broadcasted all activities. Although the campaign aimed at the total population, the first few months stressed children, young people and their families.

The campaing started with the „kick-off" conference, and the starting event was hiking trip to the nearby mountain Sljeme. The trip was media announced, organized for children and families, including „healthy meal" and many workshops and sports events for kids. More than 900 participants walked that day. In the following weeks events covering physical activities and healthier diet were created, organized and implemented in the kindergartens, schools, Red cross campus, public libraries, open spaces, youth debate clubs and private homes. The promotion of public involvement in each of the settings and opening possibilities for collaborationa are stressed. All events were followed by the RTL TV channel and broadcasted weekly in a very popular, informative, family oriented program.

The initiative was very well recognized, as public health messages, using powerful media approach and common language could reach wider population and have greater impact on health.

Key messages

- The multisectoral collaboration and media involvement could help to achieve better perception of the health messages and behavioural changes
- Health sector should promote and advocate for healthier lifestyle, but community and policy are to support and compelment the actions

Healthy municipalities (HM): from charter to local partnership

Werner De Wael

W de Wael
Flemish Institute for Health Promotion and Disease Prevention, Brussels, Belgium
Contact: werner.dewael@vigez.be

265 municipalities (MP) in Flanders are working with the project 'HM' which was launched April 2013. VIGeZ (Flemish Institute for Health Promotion and Disease Prevention) who strongly believes in subsidiarity reaches with this project 86% of all MP's in Flanders. HM helps them to work at their own pace and according to their own needs to a more sustainable health policy (SHP).

The initial success of HM is attributed to the basic principles of this project:

- Local autonomy: VIGeZ developed HM with attention for the administrative relationships between Flanders and the MP's. This means that participation happens voluntarily, there are no planning and reporting burdens and demand-driven work is more important than supply-oriented work. Additionally there's a strong attention on communication and branding.
- Attention to both action and policy: HM supports local actions, which already had a long tradition, and tries to stimulate project work to guarantee a SHP.
- Integrated policy: A successful SHP with equal health opportunities for all is a policy that's supported by all political leaders and all officials. VIGeZ tries to raise enthusiasm for this broad approach. The policy and management cycle which is applicable to all Flemish local MP's, offers many opportunities. By focusing on professional development and networking new partnerships arise.

MP's who choose for the project 'HM' sign a charter and are coached by their Local Health Platform and VIGeZ. They use the growthmeter as a compass with 35 quality criteria grouped in 7 process components (eg. citizen participation . . .) and a health matrix to come to a mix of actions. To promote these actions and activities they use personalized promotional materials.

VIGeZ strives that all partners: politicians, officials and civilians feel vested in the project HM where the common purpose is a better health in the MP's and Flanders. The strength of the collaborative effort and mutual benefit gained by all partners fortifies HM.

Key messages

- 265 municipalities are working with the project 'HM'. HM helps them to work at their own pace and according to their own needs to a more sustainable health policy
- VIGeZ strives that all partners: politicians, officials and civilians feel vested in the project HM where the common purpose is a better health in the MP's and Flanders

Public health and e-health: Health communication in five main Italian newspapers (online version)

Viola Amprino

V Amprino[1]*, F Bert*[1]*, MR Gualano*[1]*, A Muça*[1]*, R Siliquini*[1]
[1]Department of Public Health Sciences, School of Medicine, University of Torino, Turin, Italy
Contact: viola.amprino@unito.it

Background

Currently, health topics represent one of the main issues dealt by the mass media. For instance, the news during emergencies represent an example of how media information can generate good results in matter of health education and prevention of diseases. The aim is to describe and quantify the number of articles including public health news published on the main Italian newspapers, in order to fill the gap existing in the scientific literature about this concern.

Methods

From December 2013 to March 2014 the online version of the five most read Italian newspapers has been consulted. A table chart was created in order to analyze for the main public health topics the press collocation, the source of data, the geographical area of interest, the presence of health advice and the text readability. We used the statistical calculation called Gulpease index to evaluate the readability of the text. Data were analysed using STATA 13.0.

Results

Six hundred forty-one articles were retrieved. The most represented topic was nutrition and food hygiene (36.7%) and it was mainly located in health section of each journal (95.3%) while vaccinations were less represented (6.2%). All the articles resulted difficult to understand for the readers who have lower secondary education according to the International Classification of Education. In the most of the topics analysed, health advice were present, especially in the case of vaccination and infectious disease (75%). The role of the public health professional was underestimated for some topics as vaccination (7.5%) and epidemiology (2.9%).

Conclusions

A comprehensible journalist writing is required. It should be necessary to diffuse not only "newsworthy" news but also positive, as practise vaccination campaign and vaccine benefits. This feature is a serious aspect that concerns all the European States. As consequences, it is important to provide "evidence based news" in order to have an "evidence based journalism".

Key messages

- Mass media represents important tool to improve the community health knowledge
- Mass media should provide easily understandable health news

Nutritional status and nutritional label knowledge among workers of Oil Company, in southern Brazil

Aline Schneider

V Just Blanco[1]*, L Lobo*[1]*, D Medeiros*[1]*, A Petter Schneider*[2]
[1]Universidade Federal do Rio Grande do Sul. Curso de Nutrição, Porto Alegre, Brazil
[2]Universidade Federal do Rio Grande do Sul. Faculdade de Medicina. Departamento de Nutrição, Porto Alegre, Brazil
Contact: aline@ipgs.com.br

Background

An important component in addressing the chronic non-communicable diseases (NCDs) is health education. The food label is an important link between consumers and products, and may be used for educational purposes. This study aims to evaluate the level of understanding of consumers in the context of food nutrition labeling.

Methods

This was a cross-sectional study enrolled workers in Oil Company of Rio Grande do Sul, Brazil. Workers were evaluated regarding sociodemographic, nutritional status and nutritional label knowledge. Through an empirical research that uses the methodology of an assessment system for functional literacy, a profile of consumers is drawn and a score of the respondents related to nutritional label knowledge applied by National Health Surveillance Agency is measured. The maximum score for literacies is 11 points. The study was approved by the Federal University of Rio Grande do Sul Research Ethics Committee (protocol n°. 463.648).

Results

A total of 331 workers were evaluated to participate in the study. Of them, 15 workers were excluded because they decline to participate in this study. The mean age of the 316 workers was 39.3 ± 9.8years, and 223 (70.6%) were men. One hundred eight (34.2%) workers have any NCDs. The mean BMI for the sample was 26.5 ± 4.1 kg/m^2. A total of 120 (38.1%) patients had a normal BMI; 131 (41.6%) were overweight and 64 (20.3%) were obese. Regarding to understanding of the information on the label, 53 (17.9%) individuals reported having a "total" understanding, 244 (80.8%) "partial" understanding, and 5 (1.6%) no understanding. Mean of literacies score was 4.4 ± 2.1 points.

Conclusions

Results show evidence that consumers have a partial understanding of nutrition labels. Different levels of understanding by the variables gender, level of education, age, and nutritional status can bring important benefits to the area of consumer behavior and public policy.

Key message

- Different levels of understanding by the variables gender, level of education, age, and nutritional status can bring important benefits to the area of consumer behavior and public policy

Patients' rights in Serbia in comparison with EU practice

Biljana Buljugic

B Buljugic[1]*, V Bjegovic*[2]*, M Santric*[2]
[1]School of Medicine, Center - School of Public Health & Health Management, Belgrade, Serbia
[2]School of Medicine, Institute of Social Medicine, Belgrade, Serbia
Contact: buljugic@gmail.com

Introduction

Creating an efficient system of patient rights is central for patient empowerment and safety. States have to establish rights, inform patients about their rights and set up institutions supporting patients in unsafe situations. The European Charter on Patients' Rights (Rome, 2002) has made an outstanding breakthrough in the field of patient rights. There have been significant changes in both Serbian and Austrian legislation following European

developments, including the institution of patients' rights ombudsman.
Objective: Performing comparative analysis of legal regulations and mechanisms in the field of patient' rights protection of Austria and Serbia in order to identify opportunities for improving legislation, and to analyze the position and role of ombudsman for the protection of patients' rights.

Methods

Desk search of legal documents related to patients' rights in Serbia and Austria has been done in order to identify achievements in both legal systems regarding implementation and protection of patients' rights. The study has been conducted (October 2012 – May 2014), including oral interviews with key experts in the field of patients' rights. After transcription, the interviews have been systematically analyzed using the qualitative method.

Results

EU standards in the field of patients' rights have been successfully implemented in both legal systems. Patients' rights protection is supported by different legal acts in both countries. Introduction of the Ombudsman has significantly contributed to a better protection of patients' rights in practice. Interview results show that it is necessary to invest more efforts in informing patients and educating them on the available mechanisms for patient rights protection.

Conclusions

Further work in implementation, raising awareness and empowerment of patients is necessary, providing quality information and improving patients' knowledge on their rights.
Key words: patients' rights, legislation, ombudsman

Key message

- Further efforts in protection and improvement of patients' right in Serbia is necessary

Y.F. Poster Displays: Health data, methodology, monitoring and reporting

Respiratory Syndromes Surveillance System to monitor Emergency Department crowding in Genoa, Italy

Cecilia Trucchi

C Trucchi[1], *C Paganino*[1], *A Orsi*[1,2], *P Canepa*[1], *V Faccio*[1], *E Rappazzo*[1], *A Battistini*[2], *F Podestà*[2], *P Moscatelli*[2], *A Morando*[2], *F Ansaldi*[1,2]
[1]Department of Health Sciences (DiSSal), University of Genoa, Genoa, Italy
[2]I.R.C.C.S. University Hospital San Martino - IST National Institute for Cancer Research, Genoa, Italy
Contact: cecilia.trucchi@edu.unige.it

Background

Overcrowding of the emergency department (ED) is a significant and multifactorial public health problem in Europe, especially during the winter season, when the influenza epidemic occurs. The lack of indicators able to monitor, predict and quantify the ED overcrowding affects early response. The aim of the study is to evaluate the performance of a chief complaint syndrome surveillance system (SSS) using data from the ED records of Influenza-like Illness (ILI) and Low Respiratory Tract Infections (LRTI) accesses as tool of effective management of ED overcrowding.

Methods

For the 36-month period from May 2012 to April 2015, access data for ILI and LRTI at the referral teaching hospital I.R.C.C.S. A.O.U. San Martino–I.S.T., Genoa, Italy obtained by SSS and detection of respiratory viruses in the community obtained by regional reference laboratory were compared with the number of ED stretchers at 8:00a.m. Syndrome coding, data capture, transmission and processing, statistical analysis to assess indicators of disease activity and alert thresholds, and signal response were operatively used from 2007 at regional level and revised by Triple S projects.

Results

Despite ILI and LRTI accesses were less than 5% out of >95,000 yearly accesses for all cause, SSS indicators were strongly correlate with ED stretchers counts. LRTI indicators odds ratios (ORs) were >10 times higher in comparison with ILI ORs in predicting ED overcrowding. During influenza virus circulation, when ILI and LRTI accesses increased, the implementation of extraordinary bed management strategies (ordinary hospitalization block, extension of ward admitting ED patients, ecc.) allowed to interrupt the growth of ED stretchers.

Conclusions

SSS integrated with a rapid detection of the etiological agent of respiratory infection could be an effective, specific and sensitive tool for monitoring, predicting and managing ED overcrowding.

Key messages

- Syndrome surveillance based on ED records of ILI and LRTI could useful to monitor, predict and manage ED overcrowding
- Accesses for LRTI strongly contribute to ED overcrowding

The influence of social networks on unusual sexual practices and the related health impact

Silvia Boni

S Boni[1], *S Barbieri*[1,2], *P Frisoni*[1], *S Benedetti*[1], *R Snenghi*[3], *M Bergamini*[1], *G Vettore*[2], *L Omizzolo*[1], *FM Avato*[1], *P Feltracco*[2], *RM Gaudio*[1]
[1]Department Medical Science University Ferrara, Italy
[2]Department Emergency Urgency Padova, Italy
[3]Department Legal Medicine Padova, Italy
Contact: silvia.boni@unife.it

Background

This presentation underlines the dataset of new medical unrecognised rituals or sexual habits that can cause severe morbidity and mortality. Hazardous sexual practice information is diffused through the Internet and Social Network called ''BDSM'' (Bondage and Discipline, Dominance and Submission, Sadism and Masochism) such as fisting, ballgag, pegging, erotic asphyxia, bondage, gerbilling, trampling, sex roulette, scat, spanking, pony-play, figging. OBJECTIVE: A computerized search of pathologic findings and sites of injuries, which followed these sexual practices, were collected in the Emergency Department and in a Forensic database over a 15-year period from 2000 to 2015, in two University Hospitals of Italy. The main focus of this report centres on injuries due to ''sexual social sharing'' and web behavioural influence.

Results

Over the time period considered 40 individuals underwent medical examination. 20 out of 40 persons died due to the above mentioned practices. Eight of 20 living people (40%), whose injuries were identified as a consequence of ''wild'' sexual activities, had a positive blood alcohol concentration. In over 1/3 of cases these sexual practices followed a probable or possible imitation of analogous practices discovered on the web. CONCLUSION: Various literature reports underline an escalation of sexually dangerous behaviours due to ''sexual social sharing'' and web behavioural influence.

In terms of public health, these findings could suggest a new pathologic entity, with trauma originating from different ''unconventional'' mechanisms of injury. The accidental trauma, the psychological and personal histories and background, indicated a high level of internet impact. In terms of prevention and medical public health the involved physicians and other personnel need to be aware that these bizarre habits or strange practices may result not only in a certain medical cost, but also in potential prolonged invalidity or even death. The increased diffusion of these unusual cases, likely attributed to these "web inspired sexual practices", and which were responsible for accidental fatal mechanical asphyxia, trauma, infections, unusual suicide-homicide, must be recognized by clinicians, public health staff, and forensic pathologists as an important warning sign of uncontrolled "sexual social sharing".

Key message

- web impact: new considerations regarding health in young

Data collection of the Korea Community Health Survey

YooJin Kim

YWK Kang, YJK Kim, SCH Sung
Division of Chronic Disease Control, Korea Centers for Disease Control and Prevention, Cheongju-si, South Korea
Contact: yoojinkim81@gmail.com

Problem

The Korea Community Health Survey is conducted by a trained interviewer who visits the selected sample households and conducts one-on-one interviews with all adults aged 19 years or older using an indirect entry method. Since the first administration of the KCHS in 2008, PAPI (Paper Assisted Personal Interviewing) was a data collection mode. However, the method was found to be within limit.

The centralized data processing support system is the most efficient way of increasing collectively the quality of statistics produced in different situations. Under paper-based interview conditions, errors due to various levels of manual work that enables data quality improvement happen. Therefore, Computer-Assisted Personal Interviewing (CAPI) was introduced in 2010.

Results

With the introduction of computer-assisted personal interviews (CAPI) in 2010, the survey was conducted with the program-installed notebook computer, and the data was transmitted to the central server by interviewers on a daily basis. By method of CAPI, interviewers conducted one-on-one surveys using data processing equipment (like notebooks) instead of paper questionnaires. They could correct responding errors at the field survey stage and help improve data accuracy while editing and saving the data at the same time.

Lessons

The field survey was computerized through CAPI; as a result, previous errors due to various levels of manual work were removed, thereby enabling data quality improvement.

Key messages

- The CAPI method itself has been greatly applied to the data collection in KCHS
- Data accuracy and quality are improved under the CAPI system

Economic efficiency of hospital-replacing technologies

Aiman Ozhikenova

A Ozhikenova[1], K Kurakbayev[2]
[1]School of Public Health after Kh. Dosmukhambetov of Kazakh National Medical University, Almaty, Kazakhstan e-mail: aiman84@mail.ru
[2]Department of International Health of Kazakh National Medical University, Almaty, Kazakhstan
Contact: aiman84@mail.ru

Considering the international experience, the ratio of primary health care and hospital care that plays a key role in rational use of resource-saving technologies is reviewed and gradually brought into line with the real needs.

Methods of investigation

Cross-sectional, full study was carried out in 76 outpatient organizations of Almaty.

The object of investigation - day hospitals, statistical data for 2010–14.

Inclusion criterion was medical organizations providing hospital-replacing care, exclusion criterion - organizations not providing hospital-replacing care.

Results

In Almaty in 2014 312 965 patients were treated, in hospital-224647(72%), in day hospital-88318(28%), (2010-68755(24%).

Total amount invoiced for day hospitals increased 4,9 times (2011-1,7 times).

Average cost growth rate of 1 case in day hospital increased 3,8 times (in 2011–1,7 times), in hospitals it increased 2,6 times (2011-1,8 times).

On forms of hospital-replacing care in day patient facilities at clinic 51342(58%) patients were treated, in hospitals - 21278 (24,1%), home care - 15968 (17,8%).

Average cost of 1 case in day patient facilities at the clinic increased 4,2 times, (2011-1,77), in hospitals - 2,8 times (2011-1,74).

In day hospitals the number of beds - 1404 (734 in 2010), availability of hospital-replacing technologies for population in 2010–5,5 for 10000 population; 2013–7,9, 2014–9,1. Annual average absolute increase is 159 beds, increase of the number of beds at an average in 5 years - 16%. Average annual growth rate of financial expenditure to hospital-replacing care in RoK is 35%, in Almaty-49%.

Discussion

There is a reduction of financial expenditures for inpatient care from 93% to 87%, and increase of the relative share of financial expenditure to hospital-replacing care is from 7% to 13%. Also there is a slowdown of growth rate of the treated in hospitals to (−34% in 2014), (−35% in 2013г.), increase in the growth rate of the treated to 28% in day hospitals of Almaty

Key messages

- The trend of the growth of the number of beds in day hospital reflects the demand of hospital-replacing forms of medical care which directly indicates the active development of day hospitals in RoK
- Integrated assessment of health care quality and availability in primary health care conditions

Flanders' Intego network gonorrhoea and syphilis registration compared with mandatory notification

Christoph Schweikardt

C Schweikardt[1], G Goderis[2], Y Coppieters[1]
[1]CR2: Research Centre 2: Epidemiology, Biostatistics, and Clinical Research, CR3: Research Centre 3: Health Systems and Policies - International Health, School of Public Health, Université Libre de Bruxelles, Brussels, Belgium
[2]Academic Center for General Practice, Catholic University Leuven, Leuven, Belgium
Contact: christoph.schweikardt@ulb.ac.be

Background

The number of sexually transmitted infections (STIs) has been increasing in recent years in Flanders, where general practitioners (GPs) are not gatekeepers to secondary care and patients freely choose their physician. For the planning of prevention and testing campaigns, it is important to know how many cases and which proportion of diagnosed STIs come to the knowledge of GPs. Mandatory notification in Flanders (average population 6.32 million) in 2009–2013 obtained in total 4408 gonorrhoea and 2209 syphilis cases, giving a reported average incidence of 14 and 7/100000 persons per year, respectively.

Methods

This retrospective study is based on data from the GP morbidity registration network Intego. Its practice population (PP) is representative of the Flanders population regarding age and sex. Intego collects routine data from electronic health records of over 90 GPs in Flanders. They encode clinical labels with the software programme Medidoc. Medidoc codes indicating gonorrhoea and syphilis (2009-2013) were selected for a pilot extraction. Case definitions were applied. Due to small numbers, cases for 2009–2013 were pooled. Poisson 95% confidence intervals (CIs) were applied. After establishing the PP (yearly contact group, corrected for non-consulting patients, average 2009–2013: 152387), reported incidences were calculated for comparison with mandatory notification.

Results

For 2009–2013, Intego reported 91 (95% CI 73–112) gonorrhoea cases, with average reported incidence of 12 (95% CI 10–15), and 23 (95% CI 15–35) syphilis cases, with average reported incidence of 3 (95% CI 2–5) per 100000 persons per year).

Conclusions

Although mandatory notification may be subject to under-reporting and includes probable cases, the data suggest the implication of GPs in the large majority of gonorrhoea patients, while information on specialist syphilis treatment less often came to the knowledge of the GP.

Key messages

- Flanders Intego data suggest implication of GPs in the large majority of gonorrhoea patients
- Specialist syphilis treatment less often came to the knowledge of the GP

Use of critical reflection in advancing public health nursing care in a multi ethic population

Maria Leirbakk

MJ Leirbakk[1], *J Neerland Opsahl*[2], *T Hjelmerud*[2], *KA Wiborg*[2], *E Bratli*[2], *JH Magnus*[1]
[1]University of Oslo, Norway)
[2]Mother and Child Health District Stovner, Oslo, Norway
Contact: m.j.leirbakk@medisin.uio.no

Description of the problem

Stovner district has 30 100 inhabitants, 49% minorities from 137 countries, is located in Oslo, Norway. All pregnant mothers and children are offered free health care services and reaches 96% of the eligible population. Public health nurse (PHNs) offer services for mother and child, including health check-ups and vaccinations. "New mothers" is an early intervention public health project, aimed at improving parent and child relationship, child development, children's social adaptation, school readiness, and possibly reduce costly secondary and tertiary preventive measures. Each new mother is invited to have a "family" PHN that visit her during pregnancy and follow her until the child is two years. This is a new way of working for the PHNs and the challenges are to document the strategies used and knowledge adopted by the PHNs during this experience.

Results

Through monthly reflection papers guided by semi-structured questions, the PHNs are encouraged to critically reflect on their choices and strategies. The cases and reflections are openly discussed each month in a group with the PHNs, the project coordinator and the evaluator. This is to capture and discuss the methods, experience and knowledge used. This facilitates peer learning between the PHNs, as well as offering a coherent method for the data collection for the evaluation, and future scale-up and training.

Lessons

- PHNs experience the process of writing reflection papers as an opportunity to critical reflects on own practice.
- Group discussions opens for peer learning and increases ability to reflect on own practice.
- Use of Critical reflection in public health nursing care in a multi ethic population facilitates project evaluation and identifies core competencies required for scale-up and training.

Key message

- Critical reflection is a useful method to capture praxis, advance practitioner's knowledge, evaluate impact of change in practice, and capture knowledge adopted during service development

Development of elderly patient safety indicators using Swiss and French administrative linked data

Marie Annick Le Pogam

MA Le Pogam[1], *B Burnand*[1], *C Quantin*[2], *P Tuppin*[3], *O Reich*[4], *A Fagot-Campagna*[5], *F Paccaud*[1]
[1]Institute of Social and Preventive Medicine, Lausanne University Hospital, Switzerland
[2]Department of biostatistics and medical informatics, Dijon University Hospital, INSERM UMR866, Dijon, France
[3]Caisse nationale d'assurance maladie des travailleurs salariés, Paris, France,
[4]Department of Health Sciences, Helsana Group, Zurich, Switzerland
[5]Caisse nationale d'assurance maladie des travailleurs salariés, Paris, France
Contact: marie-annick.le-pogam@chuv.ch

Background and objectives

Population ageing has hugely increased hospital utilization and expenditures in Europe. Older inpatients aged 65 and over account now for half of acute care hospitals' admissions and bed-days. However, frailty, chronic multimorbidity, disability, polypharmacy and the complexity of care expose elderly inpatients to an increased risk of potentially preventable adverse events (PPAEs).

According to the Swiss Health2020 Reform and the French National Health Strategy that both promote safety measurements in inpatient and outpatient settings, we aim to develop and validate in-hospital and post-hospital elderly patient safety indicators (EPSIs) using hospital administrative data linked to insurance claims data to inform health policies, help patients' choice, and improve equity and efficiency.

Methods

Study population will consist of individuals aged 65 or older who were hospitalised in acute care between 2012 and 2014 and who were insured at least one year before their hospitalisation. Swiss data will be extracted from a dataset of 1.2 million persons (15% of the Swiss residents) who were insured by the Helsana Group. French data will include all beneficiaries of the general health insurance scheme (70% of the French residents).

The development and validation process will comprise a 6-step strategy: 1) a systematic literature review, 2) structured expert panel reviews, 3) empirical measures of the adjusted EPSIs at hospital and territorial level using Swiss and French linked databases, 4) a 4-step validation process, 5) the study of EPSIs' temporal trends and geographical variations, 6) graphical analyses of the results for hospital/territorial profiling and benchmarking.

Conclusions

EPSIs based on administrative linked data should provide valid and reliable tools for monitoring PPAEs affecting elderly patients hospitalised in acute care and for comparing elderly patients' safety across Swiss and French hospitals or health territories.

Key messages

- Patient safety indicators based on hospital administrative data linked to insurance claims data could be used to evaluate elderly patients' safety both in hospital and in primary care settings
- Elderly patient safety indicators (EPSIs) based on hospital administrative data linked to insurance claims data should be more reliable and valid than EPSIs based on hospital administrative data alone

Multi-source study for the identification of congenital malformations at birth

Monica Mazzucato

L Salmaso, A Ferrante, E Casagranda, P Facchin
Epidemiology and Community Medicine Unit, Department of Women and Children Health, Padua University Hospital, Italy
Contact: monica.mazzucato@unipd.it

Background

Congenital malformations (CM) constitute important causes of death during the first year of life, stillbirth and abortion. CM require significant care.

CM monitoring enable us to assess prevention programs, prenatal diagnostic services and to point out geographical areas of increasing risk.

In the Veneto region there is no population-based registry of CM. Such registries require a considerable use of resources. Our aim is the individuation of CM, through the implementation of a methodology which is able to link and integrate hospital discharge records (SDO), birth certificate (Cedap) and rare diseases registry (RDR).

Methods

Data from SDO, Cedap and RDR 2008–2012 have been used. The patients were identified from the three sources using Icd9 cm and/or icd10 diagnosis codes, selected according to EUROCAT criteria for major malformations. The records of the patients were linked to confirm the diagnosis. Subsequent hospitalizations were used to validate the presence of CM for patients found in a single source (SDO, Cedap).

Results

During 2008–1st semester 2012, 209.459 babies were born (621 stillbirth). Total CM prevalence at birth was 3,2%.

All the sources are relevant to determinate CM prevalence: Cedap identifies all the births, including stillbirths, and maternal characteristics, SDO is the main source for recognizing CM, and RDR allows improving the diagnosis definition.

Conclusions

The different sources provide additional information with mutual enrichment.

The integration of the different sources is an advantageous method for the epidemiological monitoring of birth defects as it ensures the completeness, validity, timeliness of information and cost-effectiveness in detecting.

Key message

- The integration of the information collected from multiple source can be useful for the areas where there is no population-based registry of congenital malformations

Medical student's opinion about vaccination

Gabriela Chirea

G Chirea[1], I Sarbu[2], C Hristia[1]
[1]Medicine, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania
[2]Dermatology, Victor Babes Clinical Hospital, Bucharest, Romania
Contact: g.abi92@yahoo.com

Introduction

In recent decades, vaccines have saved millions of lives and prevented the spread of serious diseases. Although there are doctors and patient communities that talk about some undesirable side effects, vaccines contribution to eradicating some diseases remains huge to humanity.

The aim of this research was to evaluate the opinion of medical students about the role of vaccination and to rank their availability in prescribing and administration of vaccines to their future patients.

Methods

In this research project, 104 medical students from Carol Davila University of Medicine and Pharmacy were interviewed through an online form. 47.1% of the participants studied in preclinical years, while 52.9% were in clinical rotations.

In the study were included two key questions. Question 5 of the study represents the knowledge of medical students (preclinical years comparative to clinical years) on the mode of transmission, evolution and treatment of hepatitis B. Question 8 illustrates the participants opinion on vaccination side effects.

Most of the participants agreed that hepatitis B vaccine should be administer to children, but they were reserved regarding Influenza vaccination for children.

However, there were problems when question about national calendar of immunization came across. A total of 54 students knew the exact periods of immunization.

Results

It is observed that most participants in the study were females - 86.6%, which is a much larger proportion than males −13.4%, the average age of the participants was between 22 and 24 years.

At question 5, only 48 out of 104 knew that hepatitis B is 100 more infective than HIV/AIDS virus, also just 38 students responded affirmatively that hepatitis B has a curable treatment. Most subjects at question 8 did not answer / did not know the vaccination side effects.

Finally, only 61 of the subjects participating to the study were vaccinated for influenza in 2014.

Conclusions

In conclusion, the opinion of medical students varies from the opinion of the general population, which attributes vaccination a multitude of wrong conceptions, due to lack of information or, on the contrary, because of an influx of misinformation.

Keywords: vaccine, immunization, side effects

Key messages

- The aim of this research was to evaluate the opinion of medical students about the role of vaccination
- Although there are doctors and patient communities that talk about some undesirable side effects, vaccines contribution to eradicating some diseases remains huge to humanity

Epidemiology Characteristics of TS Patients at the Psychiatric Ward of the Hospital in C.Budejovice

Kvetoslava Kotrbova

K Kotrbova, V Dvorak, M Kovarova, F Kotrba
University of South Bohemia in Ceske Budejovice, Faculty of Health and Social Studies, Czech Republic
Contact: kotrbova@zsf.jcu.cz

Suicidal behaviour is defined as an act of intentional self-harm with fatal outcome (suicide) or non-fatal consequences (suicide attempt; Tentamen suicides; TS). We have implemented and retrospective study at the Psychiatric ward of the Hospital in Ceske Budejovice. The aim of the study was to compare two groups of patients treated and examined in this department between the years 1985–2012. The data was obtained from medical records of examined patients. The files were compared in terms of some epidemiological characteristics, gender, age, education, character of TS, presence of psychoactive substances, diagnosis of mental disorders, etc.

In 1985 there were 1195 patients examined of which approximately 55% were women and 45% men.Of the total, 68 patients were diagnosed with TS (5.69%). In 2012 it was 3826 patients, of which 212 (5.54%) were diagnosed with TS. The number of in-patients tripled.

From a gender perspective in 1985 approximately 45% of the sample diagnosed with TS were men and in 2012 men accounted for 69%. This tendency was also observed in the sample of all treated patients, although the differences are not so significant.

In the comparison years the most common was the intentional selfharm with medication (1985-40, 2012–153 patients).

In both compared years suicidal activity was relatively often associated with alcohol consumption (1985-21 patients, 2012–98 patients).

The most common TS in 1985 was irrational and in 2012 demonstrative. At time the pathological type is decreasing. Difference in terms of age was not observed.

In 1985, in the education field, patients with elementary education dominated in the sample - total of 37 and in 2012 with secondary education without GCSÌ - total of 123.

We can conclude that the number of suicides and suicide attempts in the Czech Republic has an increasing trend. Based on the findings, it can be assumed, that the patients doubt the decision to end his/her life is in direct proportion to the use of medication (drugs).

Key message

- The number of suicides and suicide attempts in the Czech Republic has an increasing trend

What tool to measure quality improvement and patient safety in a large Italian Academic Hospital?

Rosanna Quattrin

R Quattrin[1], A Moccia[1], G Menegazzi[2], C Londero[1], P Tricarico[2], S Brusaferro[2]
[1]Azienda Ospedaliero Universitaria ''Santa Maria della Misericordia'', Udine, Italy
[2]Department of Medical and Biological Sciences, University of Udine, Italy
Contact: quattrin.rosanna@aoud.sanita.fvg.it

Issue

Indicators are key tools to establish the current status of an healthcare system, to recognize issues, to quantify reasonably pursuable goals in a given time frame, to verify consistency between obtained and expected results, to identify areas needing corrective actions and to measure the impact of activities carried out.

Healthcare systems generate huge amounts of data that offers considerable potential for policymakers, healthcare professionals, and patients if gathered and used appropriately. However, in most hospitals the collection, organisation and deployment of data is not effectively set up and used.

In 2012 a retrospective study on a large Italian Academic Hospital (AH) data flows revealed a high number of indicators (N = 398), with only 33.6% related to Quality Improvement and Patient Safety (QIPS). It was urgent to prioritize which QIPS processes to measure and to create a key performance indicators set (KPIS).

Results

In 2013 AH leadership defined a QIPS policy structured in four chapters: 1. quality planning process 2. methods and tools employed to collect, analyze and validate data, used to identify appropriate indicators 3. recipients of the monitoring findings 4. data sharing systems. It was created a specific indicator format report according Joint Commission Accreditation recommendations. In 2013 and 2014, each AH operative units were asked to select an evidence based clinical practice and to measure its adoption through an outcome indicator monitored quarterly. All indicators (80 in 2013, 55 in 2014) were collected in an annual 'Indicators Handbook' delivered in AH intranet.

Lessons

The efforts which were invested by leadership in creating a KPIS, shared with clinicians, represent the basis of the measurement used to analyse hospital performances. This study stresses the concept that a KPIS is a tool which evaluates how an hospital executes its strategic vision.

Key messages

- This study suggests how a large Academic Hospital monitors quality improvement and patient safety
- A key performance indicators set is a fundamental component of hospital strategic vision

The impact of Shared Decision Making on the length of hospital stay and the health expenditure

Stefano Passi

S Passi[1], MR Gualano[1], D Minniti[2], G Scaioli[1], M Stillo[1], F Bert[1], R Siliquini[1]
[1]Department of Public Health Sciences, University of Turin, Italy
[2]Local Health Unit (ASL TO3), Turin, Italy
Contact: stefano.passi@unito.it

Background

In times of economic crisis, with important consequences on health care, alternative solutions are required to reduce the length of hospital stay and the health expenditure. It is necessary to identify possible variables in order to hypothesize strategies to reach this objective. The Shared Decision-Making (SDM) is an approach based on shared clinical choices between the physician and the patient. The aim of the present work is to perform a cross-sectional study in order to investigate the impact of SDM on the length of hospital stay and the health expenditure.

Methods

The patients were selected after admission to clinical and surgical units at the Rivoli Hospital (Piedmont, Italy). Data were collected through a questionnaire and the Hospital Discharge Register. Statistical analyses were performed using t-test and chi-square test. Significance level was set at $p = 0.05$.

Results

In the sample analyzed (N = 178; 86 males and 92 females; 20–94 age range) 51% were married, 5% graduate and 59% have already been hospitalized to treat the same disease. General health status was reported as positive by 61% of the patients. The women ($p = 0.04$) and the young people ($p = 0.04$) are more inclined to share clinical choices. In patients (38.2% N = 68) who declared to refrain from medical decision the average length of stay and health expenditure were 14.25 days (Standard Deviation (SD): ± 10.64) and 2747.94 euro (SD: ± 2050.62 euro) respectively. Otherwise, the average length of stay and health expenditure were 13.84 days (SD: ± 13.95) and 2981.45 euro (SD: ± 1576.95 euro) in the sample supporting to SDM (N = 110 61.8%). However, using t-test, this difference is not statistically significant ($p = 0.831$ e $p = 0.423$).

Conclusions

A model of care, based on the SDM, seem to have no impact on the length of hospital stay and the health expenditure. At European level, further studies are needed to address this critical issue

Key messages

- Alternative solutions are required to reduce the length of hospital stay also maintaining the quality of health services
- A model of care, based on the SDM, seem to have no impact on the length of hospital stay and the health expenditure

Risk associated to Vibrio parahaemolyticus in shellfish in Ferrara (Emilia Romagna)

Stefania Barbieri

Silva Rubini[1], S Barbieri[2], E Pavoni[1], B Bertasi[1], L Cozzi[3], M Bergamini[4], E Suffredini[3]
[1]Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna, Ferrara, Italy
[2]Dipartimento di Igiene e Medicina Preventiva, Università di Ferrara, Ferrara, Italy
[3]Istituto Superiore di Sanità, Dipartimento di Sanità Pubblica Veterinaria e Sicurezza Alimentare, Roma, Italy
[4]Sezione di Medicina di Sanità Pubblica, Dipartimento di Scienze Mediche, Università di Ferrara, Ferrara, Italy
Contact: stefibarbieri118@gmail.com

Vibrio parahaemolyticus is an autochthonous microorganism of the marine environments, frequently isolated from seafood, including bivalve mollusks, and a human pathogen responsible for gastroenteritis outbreaks and sporadic cases. The mechanism of pathogenicity has yet to be comprehensively determined, but two haemolysins (TDH and TRH) have been recognized as virulence factors.

The aims of this work were: a) the evaluation of the prevalence of V. parahaemolyticus in mollusks harvested in Ferrara; b) the evaluation of the presence of pathogenic strains; c) the assessment of a possible effect on the public health. A total of 859 mollusc samples (601 Manila clams and 258 mussels) were collected and analyzed from January 2011 to March 2015 by the Local Health Service (AUSL) of Ferrara as a part of the regional Bivalve Mollusks Monitoring Plan. Analyses were performed according to ISO/TS 21872–1:2007 and isolates were characterized for species-specific (toxR) and pathogenicity genes (tdh and trh) by PCR.

V. parahaemolyticus was detected in 288 samples (33.5%), 251 Manila clams and 37 mussels, with a statistically significant difference (Fisher's exact test $p < 0.0001$) between the prevalence in the two species (41.8% in clams vs. 14.3% in mussels). The molecular characterization showed the presence of the toxR gene in 276 isolates (95.8%), while the tdh and trh genes were detected respectively in 21 and 15 isolates; one more strain was characterized by the simultaneous presence of both pathogenicity markers. Overall, the prevalence of potentially pathogenic V. parahaemolyticus strains was 13,4% and, significantly, almost all (36 out of 37) of them were isolated from Manila clams.

The data provided in this study on the prevalence of potentially pathogenic V. parahaemolyticus in different shellfish species harvested in the Ferrara district, will help defining guidelines for the management of the associated risk to this microorganism.

Key message

- Keywords: Vibrio parahaemolyticus, bivalve mollusks, TDH, TRH

Population's adherence to the Portuguese Health Examination Survey:the perspective of fieldwork teams

Ana Paula Gil

AP Gil[1], AJ Santos[1], J Santos[1], I Kislaya[1], AP Rodrigues[1], S NamoradoV[1], Gaio[1], M Barreto[1], H Lyshol[2], B Nunes[1], C Matias Dias[1]

[1]Department of Epidemiology, National Health Institute Doutor Ricardo Jorge, Lisbon, Portugal
[2]Norwegian Institute of Public Health, Oslo, Norway
Contact: ana.gil@insa.min-saude.pt

Background

The participation of fieldwork teams is key to successful surveys implementation. Thus, the Portuguese National Health Examination Survey (INSEF) is involving fieldwork teams in survey quality control processes.

The aim of this presentation is to report a midterm evaluation's results of the internal quality control concerning participants' recruitment strategies and how these influence participation rate.

Methods

A focus group discussion was carried out with fieldwork teams (nurses, laboratory technicians and administrative staff) and regional coordinators in the North, Center and Algarve regions. Each focus group had between 8 to 14 participants with an average age of 47 years and a long professional experience with an average of 22 years. A slideshow presentation fostered the discussion of the survey process: strengths and weaknesses of training, recruitment, informed consent, physical exam, blood collection, interview and logistical issues. It also explored the teams' perceptions of local cultural attitudes and the strategies used within the fieldwork. A thematic content analysis was performed.

Results

According to fieldwork teams, higher participation rates depend on: invitation letter signed by personal General Practitioner; free clinical analysis; pride in being selected in a scientific study; study conducted by experienced health professionals; data collection in local health center, schedule flexibility, invitation and confirmatory telephone calls. Also important: population's size, cultural factors and fieldwork teams' years of experience. In two focus groups, opinions on invitation letters' legibility differed between socio-professional categories: nurses and administrative staff.

Conclusion

Participation rate depends on fieldwork teams' credibility and local community. The use of qualitative methods such as focus group is important to improve survey processes and these can also give valuable input on fieldwork teams' engagement and motivation.

Key messages

- Focus groups are useful tools to develop strategies for improving both participation rate and technical procedures; given that quality data are essential for any health survey
- Field teams are motivated by a participatory methodology based on a continuous process of evaluation and discussion

A FMECA for risk management in a laboratory process

Andrea Serafini

A Serafini[1], E Franceschini[2], P Calzoni[2], C Russo[1], N Nante[2,3], Scapellato[2]

[1]Post Graduate School of Public Health, University of Siena, Italy
[2]Clinical Pathology Unit, ''Le Scotte'' Teaching Hospital, Siena, Italy
[3]Health Services Research Laboratory, University of Siena, Italy
Contact: serandre85@gmail.com

Issue/problem

FMECA (Failure Mode, Effects, and Criticality Analysis) is a method widely used in industries to find the most critical activities in order to resolve high priority problems. Recently, this method has been used also in healthcare processes, but rarely in health laboratory processes.

Description of the problem

The aim of this study is to apply the FMECA to a laboratory research of mutation of factor V Leiden. We divided the process in phases. For each errors in the phases, we found 3 values (between 1 to 10): OCCURRENCE (O) is the frequence of the error; when possible, it was deduced by error reports, otherwise it has been established after a brainstorming between the staff involved in the process; SEVERITY (S) and DETECTION (D) respectively the error's severity in term of result's reliability and waste of resources, and the probability that an error just occurred can be quickly identified, both established by brainstorming. Multiplying O, S and D we obtain the Risk Priority Number (RPN), which allowed us to prioritize the errors, and to choose which action put into effect: $RPN < 100$ no actions; $100 \leq RPN < 150$ corrective actions; $RPN \geq 150$ preventive actions.

Results

We analyzed 5 phases in the process and a total of 58 possible errors. After calculating each RPN, we found 23 errors with acceptable RPN which require no actions; 15 errors which require a corrective action; and 20 errors which need a preventive one. The analytical phase scored the greater number of preventive actions.

Lessons

There is scarce literature about FMECA in laboratory processes, so it has been difficult to assign by brainstorming S, O, and D value. The higher RPN belonged to manual activities, so the preventing actions will be oriented in automating manual tasks, or else in improving the error detection; while as corrective actions trainings to the staff will be made. After corrective and preventing actions another FMECA will be carried out to verify the improvement in the process.

Key messages

- This is one of the first uses of FMECA in a health laboratory process
- The higher risk priority number belonged to manual activities and hard to detect errors

An exploration of comparing two long-term care evaluation tools in Taiwan

Kai-Hsun Wang

KH Wang[1], YM Chen[2]

[1]Surveillance and Research Division, Health Promotion Administration, Ministry of Health and Welfare, Taipei, Taiwan, R.O.C
[2]Department of Health Policy and Management, National Taiwan University, Taipei, Taiwan
Contact: r00848032@ntu.edu.tw

Background

Evaluation criteria for receiving care from Taiwan's long-term care services and care from foreign caregivers are different. The former is based on Taiwan's Physical Function Assessment Scale, whereas the later is based on Barthel Index. This study aimed to evaluate the consistency between Taiwan's Physical Function Assessment Scale and Barthel Index.

Method

One hundred subjects living in Taipei cities who applied for long-term care services were recruited. All subjects were classified into three levels of disabilities, including high-disabled, median-disabled, and low-disabled disabilities, according to Taiwan's Physical Function Assessment Scale. Wilcoxon sign rank test are used to evaluate the consistency between the level of disabilities evaluated by Taiwan's Physical Function Assessment Scale and the scores evaluated by Barthel Index.

Result

For the whole population and high-disabled population, the disability levels evaluated by Taiwan's Physical Function Assessment Scale showed lower disability level when compared to the results evaluated by Barthel index ($p < 0.05$), indicating possible underestimation in these populations. For non-disabled, low-disabled and mid-disabled population, the evaluated results of Taiwan's Physical Function Assessment Scale showed to overestimate the disability levels when compared to the results evaluated by Barthel index, but the findings were not significant ($p > 0.05$).

Conclusions and recommendations

The comparisons between Taiwan's Physical Function Assessment Scale and Barthel Index showed inconsistency, especially among those who were severely disabled, which may result in long-term care resource injustice. People who evaluated as severely disabled by Barthel Index were tended to be evaluated as moderately disabled by Taiwan's Physical Function Assessment Scale. In addition to the different scoring methods between Barthel Index and Taiwan's Physical Function Assessment Scale, differences in levels of disabilities assessed by the two tools might be the main reason contributing to the discrepancy of the evaluated results by the two tools. Taiwan will enter aged society within 5 years. Developing a single tool for evaluating long-term care needs is strongly recommended for the efficiency and justice of long-term care resource utilization and distribution.

Key messages

- Severely disabled people evaluated by Barthel Index were tended to be moderately disabled when they were evaluated by the physical function assessment scale used in Taiwan
- The Barthel Index might be more sensitive to detect early stage disabilities than the physical fucniton assessment scale used in Taiwan

Willingness to use and pay for pharmacological smoking cessation therapies among smokers in Germany

Ines Aumann

I Aumann, M Treskova, N Hagemann, JM Graf von der Schulenburg
Leibniz University of Hanover, Center for Health Economics Research Hannover (CHERH), Hannover, Germany
Contact: ia@cherh.de

Background

Despite increasing public policies as the smoking bans there are high smoking rates especially among young adults. Pharmacological measures as the Nicotine Replacement Therapy (NRT), Bupropion or Vareniclin can support smoking cessation. However, these measures do not get reimbursed by compulsory health insurances in Germany due to the §34 SGB V. The aim of this study is to evaluate the willingness to quit smoking of young adults and to assess the willingness to use and willingness to pay (WTP) for NRT, Bupropion and Vareniclin.

Methods

Two cross-sectional analyses were conducted whereby the first survey is completed. The second survey is currently underway and completion is projected for May 2016. In the second survey we include more participants with a lower education level and changed the order of some questions to prevent distortions. Social networks are used to recruit all smokers over 18 years. WTP for medications is determined with the contingent valuation method and payment cards. The different therapies are presented in view of type of intake, dose, prospects of success and potential side effects. The participants are asked for their smoking status, number of quit attempts, and socioeconomic status. Full descriptive and regression analysis will be conducted.

Results

In the first survey 419 study participants were included. The average age of the participants was 30,39 years. With 25,54% of university graduates and 75% of people with a general qualification for university entrance the persons of the sample have a high level of education. 60% of the participants are willing to quit smoking and 15,99% of them have a WTP for the NRT. The WTP for NRT is in 80% of all cases below the market price.

Conclusion

Initial indications suggest that young adults have a small WTP for NRT, Bupropion or Vareniclin. Statements about the factors that influenced the willingness to use and pay are presented at the conference.

Key messages

- Initial indications suggest that young adults have a small WTP for NRT, Bupropion or Vareniclin
- There is some evidence that the willingness to use if it is free of charge is higher for smokers with low income but their willingness to pay is lower compared to smokers with a higher income

Y.G. Poster Displays: Evidence and public health practice

What Works for Multiproblem families? Evidence-based interventions in the Netherlands

Danielle Jansen

DEMC Jansen, M Klaassen-Vermaat, KE Evenboer, SA Reijneveld
Department of Health Sciences, University Medical Center Groningen, Groningen, The Netherlands
Contact: d.e.m.c.jansen@umcg.nl

Background

Multiproblem Families (MPFs) experience severe problems in multiple areas of life, such as psychosocial problems, parenting problems and socio-economic deprivations. Care and treatment are highly needed for these families, but evidence is scarce on the effectiveness of interventions for MPFs. Therefore, the aim of this study was to conduct a systematic review on the effectiveness of interventions for MPFs in the Netherlands.

Methods

We searched the Database Effective Interventions (DEI) of the Netherlands Youth Institute as starting point for the systematic review. This database includes interventions aimed at the prevention and/or treatment of problems in child development. These comprised 30 interventions targeted on MPFs. All these interventions were at least theoretically grounded. Next, we systematically searched for studies with a randomized controlled trial, pre-posttest or quasi-experimental design published between 2005–2015. We used the databases PsychInfo, SocIndex, Medline, Eric, PiCarta and Web of Science. The search terms were related to the names of the interventions included in the DEI (i.e. Families First, Triple P or Signs of Safety).

Results

In total, 342 studies were identified for further assessment. The initial screening (based on reading titles and abstracts) resulted in 36 studies. After reading full-texts, 17 studies were included which related to 10 interventions. The results of the review confirm that evidence is very scarce concerning the effectiveness of interventions for MPFs. During this workshop we will discuss the ideas for further assessment of the effectiveness of these potentially effective interventions. How should we proceed in future research?

Key message

- No evidence-based interventions regarding care for MPGs are available in the Netherlands. Development and assessment of such interventions is of major public health importance

Assessment on tobacco smoking in the province of Pavia (Lombardy Region, Northern Italy)

Guido Fontana

G Fontana, C Martinotti, S Migliazza, S Dalle Carbonare, E Frisone, C Cerra, S Nieri
Local Health Authority of the province of Pavia, Italy
Contact: guido_fontana@asl.pavia.it

Background

Recent data show, for Italian population, a reduction in the number of smokers (2010: 22,8%; 2013: 20,9%). Smoking men (♂) almost double women (♀) (26.4% vs 15.7%)

Sedentary lifestyle increases for both genders (36,2% for ♂ and 45,8% for ♀).

35,5% of the population over-18 is overweight (OW) and 10,3% is obese (OB), with differences between genders (OW: 44,1% ♂ vs 27,5% ♀; OB: 11,5% ♂ vs 9,3% ♀).

Local Health Authority (LHA) of Pavia, annually bargains with GPs on projects of clinical governance funded by 'pay for performance' schemes. Hereafter is described the project run in 2014 and results.

Methods

GPs acceding had to categorize patients in respect to their smoking habits, grouping them for age and gender. For at least 10 patients every 1.000, GPs had to calculate the body mass index (BMI) and cerebrocardiovascular risk (CCVR) and offer a personalized motivational talk to promote healthy lifestyles.

Results

305 GPs of the province tested 344.725 patients (157.966 (45.82%) ♂ and 186.759 (54.18%) ♀).

Smokers are the 14,91% of total population (♂: 18,21%; ♀: 12,11%). For all age-groups, ♂ heavy smokers are more than double than ♂. Between the heavy smokers, GPs enlisted 5100 patients (3176 ♂ and 1924 ♀) to whom BMI and CCVR were measured.

40,71% of these patients were OW (29,45% ♂ and 11,25% ♀), 18,67% OB (12,47% ♂ and 6,20% ♀). For the 25% of men a CCVR of high risk (> 20) was recorded vs the 4% of ♂.

17,86% of the 5100 patients were diabetic and 42,94% were taking antihypertensive drugs.

Discussion

GPs acceded the draft clinical governance promoted by LHA for over 75% and were further stimulated to adopt a medicine of initiative towards their patients.

The project allowed a better definition, by age and gender, of the risk factor 'smoke' in the resident population. Also allowed to enlist 5100 heavy smokers who were assessed for other risk factors (CCVR and BMI) and made the subject of an educational intervention targeted the adoption of healthy lifestyles.

Key messages

- Smoking is one of the main preventable causes of diseases. Knoreswledge of the smoking habits of its resident population is the basis of planning in the field of public health by the LHA
- Medicine of initiative by General Practitioners (GPs) based on the active recall of patients can represent an important strategy to foster interventions of health promotion based on healthy lifestyles

Evaluation of the peer-education program 'Health education on reproductive health' in Serbia

Snezana Ukropina

S Ukropina[1,2], V Mijatovic Jovanovic[2,3], A Kapamadzija[4,5], M Zotovic Kostic[6], N Dragnic[2,7]
[1]Department for Health Education, Institute of Public Health of Vojvodina, Novi Sad, Serbia
[2]Social Medicine and Health Statistics, Medical faculty of University of Novi Sad, Novi Sad, Serbia
[3]Center for Analysis, Planning and Organization of Health Care, Institute of Public Health of Vojvodina, Novi Sad, Serbia
[4]Clinic for Gynecology and Obstetrics, Clinical Center of Vojvodina, Novi Sad, Serbia
[5]Medical faculty of University of Novi Sad, Novi Sad, Serbia
[6]Department of Psychology, Faculty of Philosophy of University of Novi Sad, Novi Sad, Serbia
[7]Center for Biostatistics and Informatics, Institute of Public Health of Vojvodina, Novi Sad, Serbia
Contact: sn.ukropina@gmail.com

Introduction

Most developed countries apply different forms of education about sexual health. This research aims to assess the improvement of knowledge on reproductive health of youth after the interventive peer-education program.

Method

Post-interventive evaluation of knowledge related to reproductive health was conducted in the school year 2013/14 on a sample of 950 students of 10 high schools in the Province of Vojvodina, Serbia (57.1% of girls, 42.9% boys, mean age 16.9 years), after 16 peer-education workshops of 90' each. Out of the total sample, 349 (37.0%) did not participate in the training. Pre-interventive research was done in 2013 on the same sample of students with the same questionnaire.

Results

On a scale of 0 to 27 points, average increase of knowledge was 6 points (from 9.05 to 14.95). The largest number of students (51.4%) had a score of knowledge less than 16 and 18.6% answered correctly to more than 20 questions. The binary logistic regression model showed that students who participated in the program, in comparison to those who did not, are 5.9 times more likely to have better knowledge (the score > 14) (OR = 5.87; 95% CI = 4,07- 8.45). Students who attended high schools are more likely to have higher score in comparison to those who attended vocational schools (OR = 2.57; 95% CI = 1.84-3.59), as well as female students (OR = 2.38; 95% CI = 1.71-3.31); those with excellent or very good success in school have more than 1.5 likelihood ratio to achieve limit-score in comparison to those with good and poor success (OR = 1.79; 95% CI = 1.13-2.85). Mother's and father's educational level, socioeconomic status, relationships longer than 3 months and the use of alcohol did not show statistical significance.

Conclusion

The results of health education program indicate a significant increase in knowledge after its application. It is necessary to make these educational programs available to youth in Serbia in order to improve responsible sexual behavior.

Key messages

- Peer-education program about sexual health was a good model for improvement of knowledge, especially in

countries without integrative model of this kind of education in regular school curricula
- The programs of peer education on sexual health among youth should consider the gender-related specificities and educational attainment in order to alleviate their impact as knowledge predictors

Proactive approach in provider recruitment in HCV prevention programme in Poland in 2012–2016

Natalia Parda

N Parda, M Stepien, M Rosinska
Department of Epidemiology, National Institute of Public Health-National Institute of Hygiene, Warsaw, Poland
Contact: nparda@pzh.gov.pl

Issue/problem

In general, recruitment of public health intervention providers relies on volunteers. Thus, in case of programmes implemented in primary care, provider non-participation may result in exclusion of certain populations. We introduced a proactive approach to provider recruitment. We reviewed this process to offer improvements in future public health interventions.

Since 2012, a nationwide HCV programme is operating in Poland at primary care level. We extracted primary health care units (PHCUs) in 10 provinces and performed systematic sampling. The total number of providers was limited (50). Initial 12 PHCUs were contacted in each province, and, if required, successive PHCUs were communicated via telephone, postal invitation, fax or e-mail. A 1–2 week time was given for consideration or more if PHCUs could not yet decide.

Results

Between XI 2012 and IV 2015, 244 PHCUs were contacted. Of them, 92 (38%) did not make a final decision within a month, 98 (40%) refused and 54 (22%) agreed to participate, including 9 who finally resigned. In total, 45 PHCUs were enrolled, of whom 95% had any prior experience in conducting public health programmes. Response timeline varied between PHCUs (0-32 days; 10 on average). 45 PHCUs sent the consent form after additional period of 0–50 days (9.5 days on average). There were no significant differences in response timeline between urban and rural PHCUs and with regard to population size and PHCU's structure. Recruitment lasted for nearly 2.5 years.

Lessons

Proactive recruitment ensures inclusion of providers which so far have not been involved in public health initiatives. However, it may considerably delay the programme's execution. Given the time PHCUs required for response, we advocate to apply methods assisting them in decision-making, e.g. a web-based questionnaire for self-assessment.

Key messages

- Proactive approach in recruitment ensures more equal access to health interventions as providers who have not been involved in public health actions are encouraged to participate
- Recruitment timeline may be shortened by adopting methods which assist potential providers in decision-making

Radon: Public Health intervention in a primary school in Oporto city, Portugal, in 2012

Rita Sá Machado

S Barbosa, I Cruz, RS Machado, H Monteiro, F Machado, D Antunes, M Guerreiro, M Pereira
Public Health Unit, ACeS Porto Ocidental, Oporto, Portugal
Contact: ritamanuelmachado@gmail.com

Issue / problem

Radon is a radioactive gas produced by the decay of uranium present in rocks and soils. Different soil types emit different amounts of radon, particularly granitic soils, such as Oporto city's soils. Radon is the leading cause of lung cancer in non-smokers and the second cause in smokers. The reference maximum radon concentration in indoor air is 400 Bq/m3. The relative risk of lung cancer increases by 16% [95% CI: 5–31] for each increment of 100 Bq/m3.

In 2012, as part of an European project in schools' indoor pollution and health, radon indoor concentration levels in four rooms of a school in the city of Oporto was measured. The evaluation was done in two stages, spaced by two months, having been detected radon levels above the reference values. Preventively the school was closed by the Oporto City Hall, and later on was decreed the closure by the local health authority, until mitigation works were performed. Students and professionals were relocated to other schools after the completion of radon measurements in those schools. A briefing session for professionals and parents of involved students was done.

Results

Radon levels detected in different rooms of the primary school ranged from 3785 Bq/m3 (from 21/11/2011 to 21/12/2011) to 13896 Bq/m3 (from 01/02/2012 to 09/03/2012). Thus, the school was closed by the Oporto City Hall in 26/06/2012 and by the local health authority in 10/08/2012. Measurements taken at the three schools where students and professionals were displaced had maximum concentration levels of 172 Bq/m3, 155 Bq/m3 and 100 Bq/m3.

Lessons

Exposure to radon in Oporto is an underestimated public health problem. However, its dosage and possible mitigation measures are easy and relatively cheap.

Key message

- It is important to increase the literacy of the population about this issue and implement radon measurement in high risk indoor public places

Association of gait and vertical jump in elderly women

Rodrigo Argothy

RE Argothy[1], AR Gutierrez[2], JF Ramírez[3], O Rubiano[2], A Porras[3], OJ Perdomo[1]
[1]Biomechanics Laboratory Coordinator -BIOMED, Manuela Beltran University, Bogotá, Colombia
[2]Manuela Beltran University, Bogotá, Colombia
[3]Health Science Division – Faculty of Physical Culture, Sports and Recreation, Santo Tomas University, Bogotá, Colombia
Contact: andreaporrasr93@gmail.com;

Background

The highest impact generated during the stance phase in elder people is an indicator of low absorption and inadequate energy transmitted to the lower limbs, producing overloads on soft tissues and it increments the risk of injury. The ground reaction force (GRF) quantification allows the evaluation of asymmetries between the dominant limb and non-dominant limb. Hence, the goal of this study was to determine the possible relationship among the vertical force during the gait and the jump in older women with regular physical activity.

Methods

This is a cross-sectional study of 30 sedentary elderly women (63.9 ± 4.24 years old). The research used explosive strength (Bosco Test: squat jump – SJ, countermovement – CMJ and Abalakov – ABK) and gait analysis (phases: 1 initial contact, 2 double support, 3 pre-swing) on force platforms BTS – P 6000, (with area of 60 x 40 cm2 and sample frequency of 1 kHz). GRF data were obtained in 3 trials for each subject and it was analyzed using non-parametric and parametric statistics.

Results

The results show that the maximum force peaks of the SJ impulse ($r = 0.394$ $p = 0.03$), ($r = 0.563$ $p = 0.001$), ($r = 0.457$ $p = 0.011$) and ABK ($r = 0.455$ $p = 0.012$) ($r = 0.477$ $p = 0.008$) ($r = 0.464$ $p = 0.01$) are directly proportional to the three stages of gait. However, the flight times in ABK ($r = -0.490$ $p = 0.005$) ($r = -0.437$ $p = 0.016$) ($r = -0.427$ $p = 0.019$) are inversely proportional to the three stages of gait respectively.

As regard of the symmetry between the right and the left legs, a significantly relationship was found in the three stages of the gait (p = 0.0004) (p = 0.001) (p = 0.03).

Conclusions

Results suggest that GRF data in gait and vertical jump may help as diagnosis parameters to support the determination of injury risk, according to the high impact generated by the lower limb and the asymmetries in the dominant limb of elderly women. Therefore, the explosive force work may be a tool to prevent injuries and to improve the transmission and absorption of impact

Key messages

- The ground reaction force (GRF) relationship between vertical jump and gait shows the importance of exercise and explosive force as tools to prevent high impact injuries
- Key words: Elderly women; Gait; Ground Reaction force (GRF); vertical jump

Relationship between stabilometry and vertical force in jump evaluated in elderly women

Adriana Gutiérrez Galvis

AR Gutierrez[1], RE Argothy[2], JF Ramírez[3], O Rubiano[1], A Porras[3]
[1]Master in Science and Technologies of Sports and Physical Activity, Manuela Beltran Universitiy, Bogotá, Colombia
[2]Digital Biomechanics Laboratory BIOMED, Manuela Beltran University, Bogotá, Colombia
[3]Health Science Division – Faculty of Physical Culture, Sports and Recreation, Santo Tomas University, Bogotá, Colombia
Contact: adriana.gutierrez@umb.edu.co

Background

The aging process in people is associated with physiological changes, such as alterations in sensory processing capacity: visual, vestibular and somatosensory systems and loss of muscle mass. These alterations generate delays in propulsive forces, decreasing joint torques and loss speed of muscle contraction, increasing the risk of falls and accidents in elderly people. However, physical exercise is one effective strategy to improve balance control due to a great number of sensorial stimuli, increasing the motor unit recruiting and muscle fiber hypertrophy. The aim of this study was to determine the correlation among body composition, stabilometry and vertical force in elderly women.

Methods

This is a cross-sectional study of 30 elderly women (63.9±4.24 years). The research used stabilometry test (Romberg Test: center of pressure – COP) and explosive strength (Bosco Test: squat jump – SJ, countermovement – CMJ and Abalakov – ABK) on force platforms BTS - P 6000 area 60 x 40 cm (with 1 kHz as sample frequency). The data were collected for 3 trials for each subject analyzed using Nonparametric and parametric statistics.

Results

Correlations found among the maximum force of landing peak with the trace length COP in stabilometry with open eyes (r = 0.36; p = 0.047), with closed eyes (r = 0.44; p = 0.014), the speed of COP with open eyes (r = 0.36; p = 0.047), with closed eyes (r = 0.45; p = 0.012).

Conclusions

The results suggest that higher levels of force may increase the overall capacity in the balance control and make postural adjustments that help to reduce the risks of falls in elderly. Public health efforts to reduce falls should include explosive strength in the exercise programs, such as a strategy diagnostic to assess static and dynamic balance in this population.

Key messages

- The correlation between kinetics variables of vertical jump and stabilometry in elderly show the important of exercise with strength explosive to reduce falls in this population
- Elderly women; Postural Balance; Center of pressure; Vertical force

Changing the Healthcare landscape in Groningen, the Netherlands: A participatory study (2014)

Christine Fenenga

C Fenenga[1,2], LS de Wit[1], S ter Veen[3], I Hutter[4], LB Meijering[5]
[1]Population Research Centre, Faculty of Spatial Sciences, University of Groningen
[2]Amsterdam Institute for Global health and Development, Amsterdam, The Netherlands
[3]ZorgBelang Groningen, The Netherlands
[4]International Institute of Social Studies (ISS), The Hague, The Netherlands
[5]Population Research Centre, Faculty of Spatial Sciences, University of Groningen, The Netherlands
Contact: c.j.fenenga@rug.nl

Background

Dutch healthcare policy is moving away from a 'social care state' towards a policy featuring increased participation and social accountability. Community councils are made responsible for transforming the healthcare in their communities. This paper discusses a unique participatory action approach (PAA) used in Northeast Groningen province, where community councils opened dialogues with multiple actors to jointly construct a new healthcare landscape. In the project, voices of local communities, a large health-insurance provider, primary and secondary healthcare providers, CareFirst (Zorgbelang), an umbrella organization for patient interest groups, and the University of Groningen were incorporated.

Methods

The PAA was chosen to encourage greater responsiveness of all stakeholders. Introductory meetings in three communities were organized for chronically ill and informal caregivers. These meetings were followed by five focus group discussions (FGDs), which captured experiences and expectations regarding policy changes and roles of formal and informal caregivers. Verbatim transcripts were coded, analyzed and findings validated and subsequently presented and discussed in a regional stakeholder meeting.

Results

Large diversity in informal care activities and associated concerns were found. Social networks are crucial for coping with high physical and mental burden that informal caretakers' experience. Caregivers are concerned about their increasing physical and mental workload, as well as the lack of information on the changes in the healthcare landscape. Experienced social-environmental (housing, transport) and bureaucratic challenges to obtain formal support affect the wellbeing of both chronically ill and their caregivers, often outweighing concerns about the new healthcare policy.

Conclusions

This PAA facilitated a process of building relationships. The findings contribute to outlining a more people-centered integral care system of formal and informal sector.

Key messages

- A PAA to healthcare reforms supports democratic decision making, empowerment and inherent community trust and responsiveness of the community
- Informal caregivers are hands-on experts and fulfill a crucial role. However socio-political changes require reconsidering this role

Being Well in the Wild

Alexandra Blowers

A Blowers
Suffolk County Council, Public Health Suffolk, UK
Contact: alexandra.blowers@suffolk.gov.uk

Being Well in the Wild

Suffolk, England has an exciting vision for reducing health inequalities across the County. With such beautiful and accessible countryside, Suffolk plans to utilise these assets in creating a grass roots movement of sustainable and community led action: marked by Duncan Selbie (CEO Public Health England) as being "of national note" (28/11/2014)

- The health burden of inactivity costs Suffolk £14,046,686 per year
- 6,189 people in Suffolk have a mental health issue that their GP is aware of
- Over 50% of adults in Suffolk do no active recreation
- Those who live within 500metres of accessible green space are 24%more likely to meet CMO guidelines for physical activity
- There is significantly less health inequality between affluent and deprived groups in areas with higher levels of green space than in areas with less green space
- 64% of respondees to a 2015 Suffolk-wide poll said that the best thing about living in Suffolk is its countryside

In Suffolk we are taking an asset based approach to reducing health inequalities:

Suffolk County Council ran a cross-sectoral workshop in 2014 with over 30 organisations. We are now working together to influence decision makers on the links between access to nature and health and to implement a series of community level projects that will improve physical and mental health through increased interaction with the natural environment.

As part of this innovative approach a project in West Suffolk, an area of high deprivation, is focussing on reducing health inequalities through outdoor activities. This approach will be replicated elsewhere.

Key messages

- Asset based approach to reducing health inequalities
- Improving health through interaction with the natural environment

Physically active workers from Primorsko-goranska County, Croatia adhere more to Mediterranean diet

Frano Mika

F Mika[1], S Pavicic Zezelj[2], G Kendel Jovanovic[2], V Nicosia[1]
[1]RUOS Health and Occupational Medicine, Saipem s.p.a, Milan, Italy
[2]Department of Health Ecology, Teaching Institute for Public Health of Primorsko-goranska County, Rijeka, Croatia
Contact: frano.mika@saipem.com

Issue/problem

Obesity is major cause of non-communicable diseases mortality and morbidity worldwide. Public health programs aiming reducing obesity and consequent non-communicable diseases are focused on promotion of healthy diet and physical activity, therefore we conducted workplace diet-physical activity study among 105 workers (men 46%, women 54%).

We evaluated workers physical activity habits with physical activity questionnaire (EPAQ2), and their habitual diet with food frequency questionnaire (FFQ). The adherence to Mediterranean diet was assessed with Mediterranean diet score (MDS). Workers anthropometric measures were also collected.

Results

There were 21% physically active (PA) workers (men 25%, women 18%) and they were younger than non-physically active (NPA) workers, especially PA men ($p = 0.0066$). Body mass index (BMI) didn't differed among men regarding physical activity, while BMI among PA women was lower and their body adiposity (%) was statistically significantly lower ($p = 0.0062$) compared to NPA women. PA workers had better diet quality that moderately adhered to Mediterranean diet, while NPA men had diet that didn't adhere to Mediterranean diet. The relative risk of developing non-communicable diseases due to lower physical activity and having unhealthy dietary habits was among men 67% and among women 63% with statistical significance of $p = 0.0021$ for women.

Lessons

Regarding provided results we can conclude that promotion of physical activity is of significant importance for workers good health in addition to promotion of Mediterranean diet.

Key message

- Public health strategies regarding reducing obesity should be aimed more on employers to encourage and provide their employees the opportunity and conditions to be more active and to eat healthier

Community paralegals helps Roma in adequate and timely exercise of health rights, Macedonia 2011–2014

Jasminka Frishchikj

J Frishchikj[1], S Mishev[2]
Association ESE, Skopje, Macedonia
Contact: jasminkafriscik@esem.org.mk

Issue/problem

Research in Macedonia showed that Roma people are more often affected by unfavorable social determinants that negatively affect their health and access to health care services. Although the coverage of Roma with health care services at all levels is satisfactory still Roma are faced with provision of health services with lower quality, suffer from more frequent violations of their rights and are more often subjected to different forms of discrimination at health care facilities. Scarce and untimely information regarding the access to and manner of exercising the health rights represent serious obstacles in realization of the health rights and that is reason why in 2011 civil society organizations (CSOs) started with provision of paralegal assistance and support (PAS).

The community paralegal programs are providing assistance and support to Roma in municipalities of Shuto Orizari, Delcevo and Pehcevo (urban and rural areas) trough selected group of seven paralegals (trained persons for delivering legal services under legal professional supervision) in the period 2011–2014. Those in need can turn for help in nearby community paralegal offices and request advice and recommendations for further actions; accompanying and representing their interest in front of the health institutions; preparation of requests and other written documents needed for realization of health and other related rights etc.

Results

The number of Roma served by paralegals rose from 150 cases in 2011 to app. 500 in 2014. Nearly, 300 Roma and more than 300 families are visited and informed for exercising their health rights. Two strategic litigation cases are identified and pursued. The level of coordination and communication among local community relevant stakeholders has increased, as well as the response to community health needs.

Lessons

When community paralegals provide support and assistance to Roma communities their health problems and health right violations are better understood, dealt and resolved. Timely and easy flow of information essential for exercising the health rights is ensured. The local relevant stakeholders are better informed and coordinated to react and respond to community needs.

Key messages

- Marginalized communities such as Roma are exercising their right to health in greater extent when legally empowered, assisted and supported by the community paralegals
- Community paralegals bridge the gap between the duty bearers i.e. Roma and duty holders i.e. relevant local stakeholders in exercising the right to health

Strategy for evidence based commissioning: a case of Sodium Hyaluronate in Interstitial Cystitis

Charlotte Lee

C Lee[1], P Badrinath[1], R Raja[2]
[1]Public Health Medicine, Public Health Suffolk, Ipswich, UK
[2]West Suffolk Clinical Commissioning Group, Suffolk, UK
Contact: charlotte.lee@doctors.org.uk

Issue

The Health and Social Care Act, 2012 placed responsibility for English healthcare budgets within clinical commissioning groups (CCG). Local healthcare commissioners have a duty to ensure there is a strong evidence base for commissioning specific healthcare interventions. The increasing pressure on healthcare resources demands innovative strategies to identify potential disinvestment opportunities. The case for the use of intravesical Sodium Hyaluronate (SH) in the symptomatic treatment of Interstitial Cystitis (IC) neatly illustrates this process. IC mainly affects the younger female population and instillation of SH requires multiple attendances to hospital resulting in disruption to work and increased demand on hospital services. Public Health Suffolk was approached to develop a commissioning policy to rationalise this use.

Description

Primary objective: To ensure the use of SH in managing IC is based on the best available evidence and offers value for money.

Secondary objective: To develop a system wide policy for the management of IC within resource constraints.

Design

Systematic literature review undertaken in 4 months. Stakeholders were contacted for details of activity, relevant information and to inform development of the policy.

Question: Is prescribing SH in IC an appropriate use of resources?

Results

There was limited literature on the efficacy of SH and available evidence was of very low quality. Despite this, the clinicians defended its use and subsequently the policy was abandoned.

Lessons

There are challenging and opposing priorities between clinicians and commissioners when developing a policy for a condition with complex aetiology, poor quality research, but representing significant disability. Commissioners should proactively look at interventions with limited evidence with a view to disinvest from these services. Success is dependent on early transparent clinician interaction. The challenges faced highlights the importance of partnerships in developing any evidence based commissioning policy.

Key message

- Successful initiatives for reducing spend in areas of limited evidence are only possible with greater clinician interaction and engagement with stakeholders

Growth Hormone Veneto Region Registry for surveillance and therapy monitoring since 2013

Monica Mazzucato

F Naccari, C Minichiello, M Mazzucato, E Toto, P Facchin
Coordinating Centre for Rare Diseases, University of Padova, Veneto Region, Italy
Contact: skanak@hotmail.it

Growth Hormone (GH) is a peptide hormone that stimulates growth, cell reproduction and regeneration. It is available as high cost drug used to treat children's growth disorders, adult GH deficiency and some rare diseases. Sometimes it is also used for athletic enhancement and prescribed for inappropriate usage. Because of its high potential risk and the high cost of therapy, it is essential to regulate as strictly as possible the use of this drug. In Public Health perspective it is fundamental to ensure prescription appropriateness by selecting patients, dosage and treatment duration. Furthermore, it is also necessary to implement ways to control and maintain sustainable health expenditure in the long-term.

In Italy, where GH therapy is provided for free to patients by the National Health Service, there is no prescription appropriateness monitoring. For this reason, in Veneto Region, it has been planned the GH Registry (GHR), a web-based information system which supports all the activities of the GH healthcare network and ensures that GH prescriptions comply with the national guidelines and other parameters determined by clinicians. The cooperation among all professionals guarantees a unique shared pathway supporting the global patient care. All clinical data such as history, prescriptions, follow-up data and drugs supply have been collected and put "on line" through the information system.

GHR has been used since July 2014 and to date the database contains data about 377 pediatric patients and 262 adults, 17% of which suffer from a rare disease and 83% from other pathologies. Previously, in Veneto Region, there were about 900 patients treated with GH. Not even a year since the GHR activation, thanks to inappropriate prescriptions cutting, this number is reduced by 29%, and GH is appropriately provided to every patient who actually needs this therapy.

GHR proves that cost avoidance is possible, while ensuring patients' health as well.

Key messages

- GH Registry is a web-based information system that, implementing national guidelines, guarantees GH therapy to every eligible patient in the appropriate dosage, allowing cost avoidance as well
- GH Registry proves that the cooperation among every different healthcare network professional ensures a sustainable health expenditure in the long-term by monitoring prescription appropriateness

What lesson did we learn from a case of potential Ebola patient in a Italian university hospital?

Assunta De Luca

A De Luca[1], A Rinaldi[2], F Ferretti[2], S Berdini[3], C Tranne[4], E Ferri[4], G Tarsitani[5], L Sommella[6], E Bianconi[6]
[1]Medical Direction - Sant'Andrea Hospital Sapienza University of Rome, Italy
[2]School of Hygiene and Preventive Medicine – Sapienza University of Rome, Ital
[3]Hospital Hygiene Operative Unit - Sant'Andrea Hospital Sapienza University of Rome, Italy
[4]Department of Emergency Medicine – Sant'Andrea Hospital Sapienza University of Rome, Italy
[5]Department of Medical-Surgical Sciences and Transnational Medicine; Hospital Hygiene Operative Unit - Sant'Andrea Hospital Sapienza University of Rome, Italy
[6]Sant'Andrea Hospital Sapienza University of Rome, Italy
Contact: asdeluca@ospedalesantandrea.it

On September 30, 2014, the Centers for Disease Control and Prevention confirmed the first travel-associated case of Ebola to be diagnosed in the U.S. For this reason, the World Health Organization has advised all nations to prepare for the detection, investigation and management of confirmed and suspected Ebola Virus Disease (EVD) cases in order to prevent further spread.

The objective of this communication is to describe the principal strategies and actions for management of patients with known or suspected EVD in a large teaching hospital in Rome, Italy.

In October 2014, we received the Ministry of Health's recommendations to identify patients who present with a suspected infectious disease and to adhere to infection control practices. Our main objectives were: to adapt protocols to our context; to develop an effective action plan and communication strategy; to train staff and implement procedures (personal protective equipment-PPE); to ensure the safe identification and management of any patients with signs of EVD; to provide dedicated areas to identify patients with suspected EVD.

When we had a patient with suspected EVD in our hospital, we discovered how unprepared we were in terms of: training staff in the donning and doffing of PPE; setting aside and outfitting the dedicated treatment space for suspected or actual Ebola patients. Thanks to this, we could modify our protocols; PPE and staff behaviors.

This experience shows the importance to give staff an opportunity to walk through the hospital's protocol for handling a simulated patient with EVD. In general, we think that "preparedness exercises" are fundamental to a complex organisation's ability to handle any type of emergency and to prevent the EVD spread.

Ensuring that potential EVD patients are identified, isolated, and managed safely we need to do practical exercises to validate protocol, to develop staff competencies and give them practice in carrying out their roles in the plans, to test protocols.

Key message

- Ensuring that potential EVD patients are managed safely we need to validate and test protocols, to develop staff competencies and give them practice in carrying out their roles in the plan

Health workforce forecasting study in Slovenia (2015-2035)

Radivoje Pribakovic Brinovec

R Pribakovic Brinovec, T Albreht, M Omerzu
NIJZ - National Institute of Public Health Slovenia, Ljubljana, Slovenia
Contact: rade.pribakovic@nijz.si

Issue/problem

Slovenia has been experiencing a lack of comprehensive health workforce planning since its independence. The response to shortages of health professionals (predominantly medical doctors) in mid-90 s resulted in a rising number of medical students. A decade later, the extensive growth (in numbers of students) occurred also in nursing education. These processes have not been adequately managed. We decided to produce a forecasting study for the period 2015–2035 for physicians and nurses. Aim of our study was to provide input for the national strategic planning of human resources in health.

Objectives of the forecasting study were: assessment of the quality of data sources, development of methodology and presentation of results to the policy makers. We developed a simple mathematical model to forecast future developments in medical and nursing workforce. Our forecast was based on demographic characteristics of the current workforce, including anticipated retirement, mortality and unemployment rates, as well as on the expected number of graduates.

Results

We assessed the quality of the main data source, the National Health Care Providers Database (i.e. registry of health professionals). Using the model we developed, four different scenarios were applied, depending on the number of graduates in medicine and nursing. All four scenarios showed growth in both professional groups within the 20-year observation period. However, the rates were much higher for nurses than for physicians. The highest scenario for physicians showed a 39% increase while the one for nurses was of 300%. On the other side, the lowest scenario for physicians showed a 21% increase and the one for nurses was of 164%.

Lessons

There is a strong need for clear objectives regarding governance and performance of the health system in Slovenia. Our forecasting study may be challenged by raising questions regarding skills and competencies of the two professions and their cooperation in the delivery of services to the patients.

Key messages

- Comprehensive health workforce planning is a need and challenge for the health system in Slovenia
- Results showed that interventions in the provision of health workforce have to be assessed and applied regularly and cautiously

Integrating knowledge and tools for local public health policies

Cati Chamorro Moreno

C Chamorro Moreno, V Santoro Lamelas, J Oliván Abejer, C Arias Abad, T Arechavala Roe
Diputació de Barcelona (Barcelona Provincial Council), Barcelona, Spain
Contact: chamorromc@diba.cat

Issue/problem

The local level is an essential level to design and implement a public health strategy promoting the intersectorial work and intervening in the social determinants factors of health.

Both local politicians and technical staff require evidence-based information and tools to take decisions and plan public health policies (PH) in order to implement coordinated interventions according to the needs of the population. In this context, the Public Health Service of the Barcelona Provincial Council (PHS) develops specific tools in order to provide local health information and plan local health policies.

Methods

On one hand, we compute the health indicators based on the different systematic official institutional databases. All data are population-based and covering 12–15 years. The analysis unit is the municipality.

On the other hand, we promote tools to generate and implement Local Health Plans (LHP) by means of working group of PH experts and local health professionals, using qualitative techniques such as focus groups and virtual debates.

Results

The PHS has developed a Local Health Information System (LHIS) that integrates relevant health indicators for policy makers and technical staff to take evidence-based decisions. Furthermore, the PHS has developed a specific programme that coordinates and gives advice to the municipalities of the Barcelona province, highlighting the local policy makers' empowerment, the community participation and the intersectorial work at local level.

Lessons

The development of LHIS and LHP are essentials tools for developing PH strategies according to the population's needs. However, it is required to develop other complementary tools oriented to evaluate LHPs, the intersectorial work and the participation of local public health (PH) agents.

At the moment, we are working in these 2 new lines.

Key message

- The Local Health Information System and the tools for planning facilitate the development of public health strategies based on an integrated perspective and the intersectorial work at local level

Y.H. Poster Displays: Austerity and health inequalities

Social position and self-rated health in 10 neighbourhoods in Denmark

Pernille Tanggaard Andersen

C Kronborg Bak[1], *P Tanggaard Andersen*[2], *U Dokkedal*[3]
[1]Department of Health Science and Technology, Unit of Epidemiology and Public Health, Aalborg, Denmark
[2]Unit of Health Promotion, Department of Public Health, University of Southern Denmark, Esbjerg, Denmark
[3]Unit of Epidemiology, Biostatistics and Biodemography, Department of Public Health, University of Southern Denmark, Odense, Denmark
Contact: ptandersen@health.sdu.dk

Background

A number of studies have shown that poor self-rated health is more prevalent among people in poor, socially disadvantaged positions. The aim of the present study was to investigate the association between self-rated health and social position in 10 deprived neighbourhoods.

Methods

A stratified random sample of 7,934 households was selected. Of these, 641 were excluded from the study because the residents had moved, died, or were otherwise unavailable. Of the net sample of 7,293 individuals, 1,464 refused to participate, 885 were not at home, and 373 did not participate for other reasons, resulting in an average response rate of 62.7%. Multiple logistic regression models were used to estimate the associations between the number of life resources and the odds of self-rated health and also between the type of neighbourhood and the odds of self-rated health.

Results

The analysis shows that the number of life resources is significantly associated with having poor/very poor self-rated health for both genders. The results clearly suggest that the more life resources that an individual has, the lower the risk is of that individual reporting poor/very poor health.

Conclusions

The results show a strong association between residents' number of life resources and their self-rated health. In particular, residents in deprived rural neighbourhoods have much better self-rated health than do residents in deprived urban neighbourhoods, but further studies are needed to explain these urban/rural differences and to determine how they influence health.

Key messages

- Strong association between residents' number of life resources and their self-rated health
- The analysis shows that the number of life resources is significantly associated with having poor/very poor self-rated health for both genders

The impact of fiscal federalism on horizontal inequity in access to health care in Italy

Fabrizio Massaro

Fabrizio Massaro
Assobiomedica, Milano, Italy
Contact: massaro@assobiomedica.it

Issue/problem

Horizontal inequity of access to health care (HI) – i.e., unequal access for equal need – is seen as a major barrier to improving population health. In the late '90s, in Italy, the process toward fiscal federalism (FF) clearly affected the health sector: this analysis is aimed to investigate the effects of the higher tax decentralization on HI and to test whether these effects are conditioned by regional GDP per capita.

Using data from a large-scale sample survey ($n = 20{,}000$ families) conducted by the Italian Institute of Statistics from 1994 to 2007, we carry out a decomposition analysis on HI at the regional level, testing the effect of Socioeconomic Status (SES). Furthermore, with a regression model for panel data, we examine how the introduction of FF affected HI in access to four health services: emergency care, home care, inpatient care and contacts with Local Health Authority (''legal'' care). In particular, with a Difference-in-Differences (DiD) approach, we consider the change in HI across richer and poorer regions before and after the introduction (in 1998) of the IRAP (a regional income tax). Our main questions are: did higher tax decentralization after 1998 play a role in change in HI? And, if so, has the change been the same across the country or different among the Italian regions?

Results

we find that SES (a) doesn't affect access to emergency and inpatient care while (b) plays an important role (pro-poor) in access to home care, and ''legal'' care (pro-rich). DiD analysis shows that (c) home care HI is not affected by fiscal federalism, (d) emergency care HI decreased after 1998 both in richer and poorer regions, and (e) increases in access to legal care after 1998 between poorer and richer region.

Lessons

reductions in home care funding could play an important role in the exclusion of well-off citizens from some services: this could produce a pro-poor inequity. Decentralization may induct or amplify territorial inequity in some services.

Key messages

- Decentralization may affect (in a positive or negative way) not only efficiency of public sector, but also inequity in access to public services
- Reduction in funding for home care may exclude low- and medium-income citizens from the service

Inequalities for Self-Rated Health and Happiness in Turkish Elderly, World Values Survey 1990- 2013

Isil Ergin

I Ergin, A Mandiracioglu
Department of Public Health, Ege University, Izmir, Turkey
Contact: isilergin@yahoo.com

Background

Unequal access to economic, cultural and social resources leads to inequalities in health and happiness. The elderly are disadvantaged for this, as the physical and mental decline corresponds to socio-economic consequences. In developing countries they are also caught between the forces of the economy and the changing family. This study aims to define the socioeconomic and demographic determinants for self-rated health (SRH) and happiness for Turkish elderly (≥ 60) using the World Values Survey (WVS) database.

Methods

WVS data for Turkey covering twenty three years (1990 to 2013) with five separate cross-sections(1990, 1996, 2001, 2007, 2013) were pooled for analysis ($n = 870$). SRH and perception of happiness were used as the major dependant variables.

Their relation with age, sex, number of children, marital status, income, education, employment status and class perception were evaluated. Chi-square analysis and multilevel logistic regression were used. Regression coefficients and their standard errors were derived to calculate odds ratios.

Results

Mean age was 66.96 ± 5.78(60-91), 58.1% were male and 76.32% were married. The majority (61.1%) was at lowest income level and 80.6% had education attainment at primary level or below. Very happy/quite happy were 81.8% while only 46.5% perceived their health as very good/good/fair. The crisis year (2001) increased the risk of bad SRH 4 times, while being a widow had a 2.4 fold, low-income 2.3 fold and low education 1.8 fold effect. The odds for unhappy status was increased 2.7 times in the crisis year and 3.4 times at low-income levels.

Conclusions

SRH and happiness of Turkish elderly bare demographic and socioeconomic inequalities. Income and major threats for it, like economic crisis, are the main overlapping drivers. To improve well being of elderly, better social policies for income is essential and at economic crisis times, support policies should be prioritized for vulnerable groups, including elderly.

Key messages

- Self-rated health and happiness of Turkish elderly bare demographic and socioeconomic inequalities
- To improve well being of elderly, better social policies for income is essential and at economic crisis times, support policies should be prioritized for vulnerable groups, including elderly

Early Childhood Networks – Strategy and implementation in Austria

Marion Weigl

S Haas, M Weigl, P Winkler, S Sagerschnig, C Knaller, G Gruber
Gesundheit Österreich, Vienna, Austria
Contact: marion.weigl@goeg.at

Sufficient evidence on the effectiveness of early childhood interventions/networks and the influence of social determinants on health is available and shows the potential of such interventions/networks to improve health and to reduce health inequity - not only in young age but also throughout the life course. Early childhood networks play an important role in addressing systematically and providing support to families with pregnant women or young children facing different and mostly multiple burdens/needs.

In order to prepare and support the implementation in Austria, in 2011 to 2014 a research project was carried out with a whole range of activities and methods, i.e.:

- assessment of availability and structure of early childhood interventions and networks in all nine Austrian provinces (online survey, interviews, focus groups, stakeholder workshops),
- analysis of existing scientific evidence as well as experience from practice with early childhood networks,
- agenda setting and knowledge transfer in order to raise awareness and knowledge among stakeholders (different sectors and professions) on federal and provincial level.

The assessment showed that a lot of interventions for early years are available but mostly not systematically targeting resp. supporting families in need. In addition, cooperation and networking between different services is lacking. The research project resulted in the elaboration of a model for early childhood interventions in Austria as well a guideline for implementation.

These activities led to a broad commitment to early childhood networks throughout Austria, across different professions and sectors, as well as the inclusion of this topic in several policy documents and strategies. From 2015 on, early childhood networks will be build up resp. extended in all nine Austrian provinces supported by a national centre for early childhood interventions.

Key messages

- Early childhood interventions/networks can improve especially the life circumstances of socially disadvantaged families/mothers and as a consequence contribute to the health of their children
- To initiate and ensure a systematic implementation of early childhood interventions/networks a wide range of activities is needed, including raising awareness and providing practical support

Redressing Health Inequality through Social Prescription Programme in Birmingham, UK

Fatemeh Rabiee

F Rabiee
Faculty of Health, Education & Life Sciences, BCU, Birmingham, UK
Contact: Fatemeh.rabiee@bcu.ac.uk

Issue

There is growing evidence about the role of social prescription on health and wellbeing (Bungay & Clift, 2010; Langford et al., 2013 and Kimberlee, 2015). Social prescription programme can act as a primary or secondary intervention for a range of public health issues including obesity, mental health, parenting skills, life skills and address inequality in health and wealth. Not enough information is available about the process and challenges of translating research findings into policy and practice.

Physical inactivity as one of the risk factor leading to obesity and other non-communicable diseases is well recognised worldwide and Birmingham is no exception. An innovative social prescription pilot ‘‘Gym for Free’’ Scheme was jointly funded between one of the Primary Health Care Trust and City Council leisure centres in one of the deprived locality in Birmingham for six months in 2008, with a view to find out if cost is a determinant factor on the uptake of the leisure facilities.

Results

A rapid appraisal of the pilot scheme explored its short-term effectiveness in relation to access, utilization, perceived benefits and sustainability (Rabiee, et al, 2015). Findings highlighted the Scheme has increased the uptake of exercise particularly for women and those from Pakistani and Bangladeshi background within this economically deprived inner city area. A marked difference was also identified in the frequency of the use of leisure facilities ($p < 0.05$).

Effect/ changes: Based on the dissemination of the findings of this pilot Scheme ‘‘Gym for Free’’ won numerous national awards for its policy innovation and short term impact on health and wellbeing. Post research activities through lobbying, advocacy and working with various stakeholders led this pilot Scheme to become a permanent feature of social prescription policy ‘‘Be Active’’. The programme is now available to the whole population of Birmingham.

Lessons

The ‘‘Gym for Free’’ Scheme as a social prescription programme was a step towards addressing health inequality by increasing access to and widening participation in exercise with multiple physical, mental and emotional benefits.

Key messages

- Time for provision of post research activities should be built as part of applied research funding grants
- Skills such as lobbying, advocacy to facilitate translating research findings into policy and practice should form part of public health research training programme

Health for All: Promoting health equity across a regional health authority

Lynda Tjaden

L Tjaden, H Moffat, L Elliott, S Harlos, L Sourin
Winnipg Regional Health Authority, Canada
Contact: ltjaden@wrha.mb.ca

The concept of health equity has gained momentum yet it has not resulted in significant and concrete public health action in Canada. People living in some areas of Winnipeg, Canada have nearly 19 years lower life expectancy than people living in other parts of the city. This requires a public health response.

Health for All is the integrated approach (not a stand-alone project or program) to weave health equity action into all decision-making and service provision to the Winnipeg Regional Health Authority (WRHA). The WRHA is responsible for providing universal publically funded healthcare to more than 700,000 people. WRHA's Public Health team provides leadership to the health authority efforts. The long term (30 + years) goal is to embed equity action in all decision-making and eliminate health inequity. The actions needed do not lie solely within the healthcare sector and involve engaging with community actors to work together on solutions.

The WRHA released a position statement (2012) and committed to ensuring health equity actions are embedded in the provision of all health care services and facilitating partnerships to amplify health equity action within and beyond the health sector. In 2013, Health for All: Building Winnipeg's Health Equity Action Plan was released to build common understanding of health gaps and describe potential areas of action. A Population Health Equity Initiatives Leader was hired in 2014. As of 2015, a region-wide committee contributes strategic leadership with three working groups supporting activities. Additional efforts include engaging senior leadership to include equity within the organization's strategic plan and into other key priorities (e.g., patient flow, quality and accreditation). Health leadership, community engagement and intersectoral partnership have supported incremental change within the health authority. A long term vision and commitment is required to improve health equity outcomes. This requires an innovative public health response in order and create opportunities that will address systemic and structural barriers to equity-centered care.

Key messages

- Health for All is the integrated approach to weave health equity action into all decision-making and service provision to the Winnipeg Regional Health Authority
- A long term vision and commitment to incremental change is required to improve health equity outcomes

Does the correlation between SES and back pain vary depending on operationalization and country?

Michael Fliesser

M Fliesser, H Williams, R Zemp, S SLorenzetti, W Taylor, PM Wippert
University of Potsdam, Potsdam, Germany
Contact: fliesser@uni-potsdam.de

Background

Socioeconomic status (SES) is a widely used test variable in social epidemiology. However when used, it is rarely considered that SES can be operationalized in several very different ways. This reduces the comparability and explanatory power of results. Furthermore, it is unknown if different methods of operationalization function the same in different countries. Therefore, the purpose of this study was to compare the influence of the operationalization of SES in Germany and Switzerland.

Method

107 participants from Germany and 41 from Switzerland were included for the final analysis. Both groups were asked to declare their highest form of education level and income. Back pain intensity was also investigated using the Chronic Back Pain questionnaire (CPG). SES was calculated using two different methods.

with education using the CASMIN-Index and income in quantiles. Linear regressions were conducted to predict back pain, with one method of SES, age and sex as independent variables. Results were then compared to examine if the two SES methods produced differences in R-squared and beta values and if these differences varied between Germany and Switzerland.

Results

In the Swiss sample, the regression model including education, age and sex yielded an R-squared value of 0.027 with a beta for education equal to −0.046 (n.s.). The model comprising of income, age and sex resulted in an R-squared value of 0.022 and a beta for income equaling −0.104 (n.s.). In the German sample, the regression model incorporating education, age and sex produced an R-squared value of 0.090 with a beta for education equal to −0.139 (n.s.). The model consisting of income, age and sex generated a R-squared value of 0.111 and a beta for income equaling −0.227 (n.s.).

Conclusion

Regarding the different methods of operationalization, the utilization of income instead of education lead to greater SES influences in both countries investigated. When comparing countries, both education and income appear to have a greater influence on back pain in Germany compared to Switzerland. These results show that not only does the method of SES operationalization affect the prediction of back pain, but also that results may differ in different countries, even when using the same methods of operationalization.

Key message

- Predicted influence of SES on back pain varies between countries and when different methods of operationalization of SES are used

Social mobility as a life-course model: new evidence from Polish 2011 data

Zuzanna Drożdżak

Z Drożdżak
[1]Center for Evaluation and Analysis of Public Policies, Krakow, Poland
[2]Swiss Tropical and Public Health Institute, Basel, Switzerland
[3]University of Basel, Basel, Switzerland
Contact: zuzanna.drozdzak@uj.edu.pl

Background

The two major life-course models, accumulation of exposures and critical period, gathered sound theoretical underpinning and empirical support. Unlike these two, the social mobility model is poorly described and only rudimentarily tested. This study aims to advance this model theoretically and understand the health consequences of social promotion and degradation based on data from Poland - a country with exceptionally high rates of vertical intergenerational social mobility between.

Methods

We selected a subsample of respondents aged 45–59 years from the Polish edition of the European Survey of Income and Living Condition, 2011 (N = 7,477) and assessed their socio-economic position in adulthood and childhood using Categorical Principal Component Analysis. We then assigned them to social classes (lower, middle, upper) using clustering techniques. The social mobility parameter was defined as difference in the raw socioeconomic score between childhood and adulthood.

Finally, we specified a series of logistic regression models, which represented different life-course models, testing how well they fit to data and how well they predict self-assessed health.

Results

The optimal life-course model is 'Accumulation+Social Mobility', with class in childhood, class in adulthood and social mobility as socioeconomic predictors. Rising in the social hierarchy provides 30% per unit increment reduction in the risk of having poor health (OR = 0.70, 95% CI = 0.61−0.80), other factors being controlled for. Failing to include the social mobility parameter causes suppression of the effect of social class in childhood.

Conclusions

Social promotion and social degradation substantially and independently affect health, lending support to proposition of the social mobility life-course model. Upwardly mobile experience a double health benefit: first from occupying higher social position; and second from rising in social hierarchy. The opposite is true for downward movers.

Key messages

- Intergenerational vertical social mobility exerts an independent and robust influence on health
- Social mobility life-course model is valid only in addition to the model of accumulation of exposures

Attitudes of public health professionals' towards monitoring health inequalities in Lithuania

Mindaugas Stankunas

J Vladickiene[1], *R Kalediene*[1], *A Zaborskis*[2], *K Smigelskas*[3], *M Stankunas*[1]

[1]Department of Health management, Lithuanian University of Health Sciences, Kaunas, Lithuania

[2]Department of Preventive medicine, Lithuanian University of Health Sciences, Kaunas, Lithuania

[3]Department of Health Psychology, Lithuanian University of Health Sciences, Kaunas, Lithuania

Contact: mindstan@gmail.com

Background

Health inequalities are considered as important challenge, and particular attention is given to exploration and opportunities to minimize them in majority of the European countries. This study aims at investigation of the perceptions and attitudes of public health professionals towards monitoring of health inequalities in municipalities.

Methods

Cross-sectional survey was conducted in 2015 on a sample of 150 health care specialists of municipalities and public health bureaus in Lithuania. The scale from 0 to 5 was used for the assessment of the view towards health inequalities (Cronbach's alpha 0.916−0.951). For the analysis of data the average scores and standard deviations were used.

Results. The most commonly monitored health inequalities at the municipality level were according to age and gender (average scores 3.53 and 3.45 respectively), while inequalities by ethnic group were least monitored (1.51).

The respondents gave the major importance to the monitoring of health inequalities among different age groups (4.20), urban and rural populations (4.11), and between men and women (3.95), while monitoring of health inequalities by ethnic groups and by marital status was considered as less important (2.64 and 3.27 respectively).

43.8% of the respondents suggested that strategies for reducing of health inequalities at municipality level are implemented only partly. The need to improve monitoring of health inequalities was considered as important (3.48 ± 1.024), while the possibility of identifying health inequalities in public health bureaus was assessed less positively (3.23 ± 0.894). The respondents emphasized the necessity to strengthen multisectoral collaboration and setting priorities for monitoring health inequalities.

Conclusion

The results provide deeper insight into the problem of monitoring of health inequalities at municipality level and point at directions for the future development of intersectoral collaboration for reducing health inequalities.

Key messages

- There is a need to improve monitoring of health inequalities and strengthen implementation of the strategies for inequalities reduction at municipality level
- The intersectoral collaboration for better monitoring and reducing health inequalities should be developed

Food waste and health inequalities: a project of Service health food nutrition ULSS 20 Verona Italy

Linda Chioffi

L Chioffi[1], *AM Ferreri*[2]

[1]Food Hygiene and Nutrition Service Director - ULSS 20 Verona, Italy

[2]Technical Prevention - Food Hygiene and Nutrition - ULSS 20 Verona, Italy

Contact: linda.chioffi@ulss20.verona.it

Description of the problem

Italy passed Good Samaritan legislation in 2003, which protects food donors and the charitable organization collecting food surplus, by recognizing the latter as final consumers. This is one of the six best practices of legislation or policy implementation that facilitates food donation, identified in Member States across the EU.

Is it doable obtaining a daily dietary intake, hygienically safe from surplus food, otherwise wasted, 'extending the food chain' beyond the usual point?

The aim of this innovative project (2008-2014) was giving protocols, studies of sustainable sanitation and appropriate expertise to associations and 'donors' (food business operator). SIAN ULSS 20 of Verona (Italy) carried out sanitary surveys sampling food recovered, verified the application of operating protocols and tested systems of donors; as well as creating a pilot project handing out a questionnaire to those who benefit from the services provided by the Shelters and to the same organizations.

Results

A health and hygiene standards protocol for the voluntaries of the associations was edited, protocols for the recovery of unsold bread and baked goods at the large-scale retail trade were created, as well as a review of the procedures for the recovery of meals not administered at school canteens of Verona. Data will be presented at the conference

Lessons

The outcomes of this project not only promote and support the reduction of food waste, but guarantee the healthiness of food redistributed according to the required standards of quality and safety; make available a safe and more correct diet for that section of population that otherwise could not access it, with increased consumption of fruits and vegetables.

The practice can give impetus at European level to the development of waste recovery

What achieved did not create additional costs to ULSS 20 of Verona

Key messages

- The outcomes of this project not only promote and support the reduction of food waste, but guarantee the healthiness of food redistributed according to the required standards of quality and safety
- The outcomes of this work make available a safe and more correct diet for that section of population that otherwise could not access it, with increased consumption of fruits and vegetables

A public policy to mitigate economic crisis and its impact on health

Gemma Olle

P Batlle[1], *A Cardona*[2], *R Crespo*[2], *N Codern*[4], *G Olle*[2], *A Pagès*[1]

[1]Dipsalut, Public Health Agency within the regional government of the Diputació de Girona, Girona, Spain

[2]ÀreaQ, Avaluation and Qualitative Research, Barcelona, Spain

Contact: amorales@dipsalut.cat

Issue/ problem

The economic crisis has had an impact on the social determinants of health (SDH) and on physical, social and psychological health. The Fundamental rights of the Universal Declaration of Human Rights have been put under stress.

There is sufficient scientific evidence to state that intervention in the SDH influences the health of people.

This project is relevant because it makes the strategy 'HEALTH IN ALL POLICIES', based on SDH and Democratic Governance, operative.

The economic crisis has put cooperation structures among social agents under stress, services were cut back and interventions became fragmented.

The Programme puts together and incorporates devices to respond to the economic crisis while facilitating:

- A reduction of the impact on health –particularly in nutrition, hygiene and clothing–, and emotional wellness.
- Tackling the causes, such as suitable living conditions of housing.
- The empowerment of people to restore their personal and social life.
- The promotion of social innovation to improve democratic governance.

Results

Between 2013 and 2014 more than 90,000 people were assisted. Work with 11 cooperation boards is underway. More than 180 professionals and 19 institutions are involved. The programme has enabled us to:

- Minimise the effects of people's life conditions and the risk of human rights abuse.
- Improve networking and revise and/or update/put together diagnoses on needs.
- Improve agents' coordination processes with an integrated approach of the intervention, planning and unification of access routes into social aid systems.
- Improve the knowledge, confidence and transparency among agents.
- Strengthen areas for reflection and training.

Lessons

The initial conditions in a certain area and the profile of experts are key factors regarding the strategies of empowerment for the area and its local agents, so that the health of a certain community can be addressed in an integrated manner.

Key messages

- The economic crisis has put cooperation structures among social agents under stress, services were cut back and interventions became fragmented
- Between 2013 and 2014 more than 90,000 people were assisted. Final results will be presented at the conference

Voluntary and community groups and health professionals contribution to selfmanagement and wellbeing

Agurtzane Mujika

A Mujika[1], *MC Portillo*[1], *MJ Pumar-Méndez*[1], *E Regaira*[2], *M Serrano-Gil*[3], *A Rogers*[4]
[1]School of Nursing, University of Navarra, Pamplona, Spain
[2]Clinica Universidad de Navarra, Pamplona, Spain
[3]Fundación Educación Salud y Sociedad, Murcia, Spain
[4]Health Sciences, University of Southampton, Southampton, UK
Contact: amujika@unav.es

Background

The burden of ageing societies, increasing prevalence of long term conditions and the accompanying challenge to the sustainability of health systems require the adoption of new strategies. In response to this, patients with chronic diseases are increasingly being made responsible for the management of their condition. Social support seems to play a significant role both in terms of the patient and the system, especially among people from deprived backgrounds.

Methods

We conducted personal interviews with representatives of Spanish voluntary and community groups (VOCGs) in the context of a European project involving six countries. Participants were purposefully selected.

Results

VOCGs were a significant source of support for people's wellbeing. This contribution was often considered significant in terms of the context and type of encounters they enabled in other terms than the ones provided by professionals in health care settings. Members valued highly the opportunity the organisations provided for sharing and being listened to by others, as well as giving a sense of purpose. The effects of the economic crisis were also being felt at this level and sometimes members saw their access to these organisations limited as a consequence.

Conclusions

VOCGs are playing a relevant role in people's self-management and perception of wellbeing. Health and other sectors should be aware of this and the opportunity that these organisations can constitute, also in the context of the current socioeconomic situation. Given the meaning and value that members attach to this kind of support, health professionals might need to reconsider their role, the place they occupy in the patients' network and their relative contribution to patients' wellbeing, as well as the implications this might have in terms of the nature of relationships between them, the patient, and other sectors.

Key messages

- VOCGs must be considered among the factors contributing significantly to self-management and wellbeing of people
- Health professionals should reconsider the place and nature of relationships they share with patients and their wider network in order to establish effective collaboration among them

The capacities of the health and non–health sectors in identifying and reducing health inequalities

Rolanda Valinteliene

G Petronyte[1], *V Aguonyte*[1], *R Valinteliene*[1], *A Jociute*[1], *J Vladickiene*[2], *M Stankunas*[2], *R Jankauskas*[1], *R KaledieneR*[2]
[1]Institute of Hygiene, Vilnius, Lithuania
[2]Lithuanian University of Health Sciences, Kaunas, Lithuania
Contact: rolanda.valinteliene@hi.lt

Introduction

This study aimed to explore the capacities of the health sector and non-health sector to identify and reduce health inequalities in order to strengthen national institutions in implementing intersectoral policies and actions to tackle health inequalities.

Methods

The cross sectional survey of 131 representatives of the health sector (the Ministry of Health, 5 institutions under MOH performing public health functions) and 88 non-health sector (the Ministry of Education and Science, the Ministry of Social Security and Labor, the Ministry of Transport and Communications, the Ministry of Environment and 2 institutions under the Government) was carried out in 2015. The questionnaire consisted of the following capacities in the field of health inequalities: (i) leadership and governance, (ii) institutional development, (iii) partnership, (iv) resources.

Results

More representatives of the health sector compared with non-health sector stated that the measures contributing to reducing health inequalities were included in the institutional strategic action plans (43.7% and 22.1%, $p = 0.012$) and three year institutional actions plans (32.8% and 17.2%, $p = 0.05$). Representatives of non-health sector compared with the health sector were more likely to note about the need to strengthen their actions to identify and reduce health inequalities (mean 3.92 and 3.59) and to build greater institutional capacities to reduce health inequalities (mean 3.63 and 3.29). Representatives of health sector stressed about close partnership with health and social sectors (mean 4.44 and 3.76) while non-health sectors were involved in partnership with social and justice sectors (mean 4.35). There was no difference between sectors in financing the measures contributing to reduction health inequalities.

Conclusions

The urgent need to develop and implement a comprehensive capacity-building approach for strengthening institutional and individual capacities to achieve health in all policies.

Key messages
- Training activities in intersectoral policy development and strategic planning, institutional leadership and governance for taking action on health inequalities issues across sectors are required
- Develop and sustain effective intersectoral partnership across sectors for addressing health inequalities

Validation of Slovak version of Health Literacy Questionnaire

Peter Kolarcik

P Kolarčik[1,2,3], *E Čepová*[1,2], *A Madarasová Gecková*[1,2,3], *P Tavel*[3], *RH Osborne*[4]
[1]Graduate School Kosice Institute for Society and Health, P.J. Safarik University, Kosice, Slovakia
[2]Department of Health Psychology, P.J. Safarik University, Kosice, Slovakia
[3]Olomouc University Social Health Institute, Sts Cyril and Methodius Faculty of Theology, Palacky University Olomouc, Olomouc, Czech Republic
[4]Public Health Innovation, Population Health Strategic Research Centre, School of Health and Social Development, Deakin University, Melbourne, Australia
Contact: peter.kolarcik@upjs.sk

Background

Health literacy (HL), as an individual's capacity to access and comprehend health information and effectively manage their health, is one of the core factors determining health inequalities in populations. Advancements of the HL field have been limited by simplistic measurement of the construct. The development of modern HL tools, such as 9-domain Health Literacy Questionnaire (HLQ), research of health inequalities can enter another level. To be able to keep up with trends in health inequalities research, the aim of this study was to adapt and test the HLQ in a general Slovak setting.

Method

A cross-sectional of general Slovak adult population (N = 360; mean age = 38.6, SD = 14.05;) using a translated and adapted HLQ. Psychometric tests (confirmatory factor analysis/ internal consistency) and the association (linear regression) between the HLQ and selected socio-demographic variables were undertaken.

Findings

Slovak version of HLQ was found to have very good psychometric properties. Confirmatory factor analysis replicated the complete 9-factor original structure with acceptable goodness of fit (e.g. Relative Chi-square = 3.58; Root Mean Square Error of Approximation = .06; Comparative Fit Index = .85) and the nine domains demonstrated independence, good validity and reliability with alpha coefficients from .74 to .83. Men tended to have higher score (all $p < 0.05$) in three domains (1, 5 and 9, regression coefficient B ranged 0.12−0.17) and higher education predicted higher score in two domains (3, 4, B ranged 0.36−0.54). Other socio-demographic variables, age, economic activity, cohabitation, did not affect score of HLQ domains.

Conclusion

The results suggest that the Slovak version of HLQ has acceptable psychometric properties in a sample Slovak adults and confirmed 9 dimensional structure. Slovak HLQ promises to be a reliable and valid measure of health literacy to advance research into health inequalities and health related issues.

Key message
- HLQ, complex HL measure, allows to deal with health inequalities in populations.
- Slovak version of HLQ was found to acceptable psychometric properties and confirmed its 9 dimensional structure

Y.I Poster Displays: Infectious disease

Blood use between 2009–2013 in a North Eastern Italian Academic Hospital: reasons for a decrease

Lucia Lesa

L Lesa[1], *R Quattrin*[2], *V Totis*[2], *V De Angelis*[2], *S Brusaferro*[3]
[1]Postgraduation School of Hygiene and Preventive Medicine, Department of Medical and Biological Sciences, University of Udine, Italy
[2]Azienda Ospedaliero Universitaria ''Santa Maria della Misericordia'', Udine, Italy
[3]Department of Medical and Biological Sciences, University of Udine, Italy
Contact: lesalucia@gmail.com

Blood management needs continuous efforts in order to maintain a balance between supply and demand. In the last decade many countries have introduced programs for a better use of blood and its consumption has been greatly reduced. In Italy a first reduction had been registered in 2013 with a percentage decrease of 2%. The study aims to analyze the phenomenon in a large North Eastern Italian Academic Hospital.

The study consisted in comparing red cell concentrates (RCC) consumption trends between 2009 and 2013 years and in analyzing other variables (hospitalizations, surgery interventions, hospital guidelines) to reach some hypothesis on causes of RCC reduction/increasing use in a large Academic Hospital. Between 2009 and 2013 RCC transfusions decreased from 19513 to 16882 units (−13,4%) with the cardiothoracic department showing the higher reduction (−29,6%), hospitalizations decreased of 10,2% and surgical interventions of 6,7%. A statistical significant difference between 2009 and 2013 RCC transfusions units means for each patient was found in heart surgery (5,0 + 5,6 vs 3,6+3,1; $p < 0{,}01$) and in hematology (11,6+12,2 vs 8,9+9,7; $p < 0{,}01$). Furthermore, during 2009–2013 period, 10 new blood management hospital guidelines had been produced and implemented.

First, these data become of critical importance since they confirm and explore the trend of RCC transfusions decrease present also at international level in countries such as United States, Australia (respectively −3% and −7% between 2009 and 2010) and UK (−20% between 2000 and 2009).

Second, the study allows to identify some reasons of the phenomenon: reduction of hospitalization and surgery interventions along with a continuous education and information activity on blood management throughout guidelines. However, it is necessary to conduct further analysis to better understand transfusions decrease (i.e. patient case-mix, introduction of new surgery technologies).

Key messages
- In the last decade reduction in blood use was found at national and international levels
- It is necessary a specific analysis of the trend in each hospital considering variables like admissions, surgical activity, guidelines

Measurement and determinants of linkage to HIV care: a systematic review

Julian Perelman

J Perelman, *A Ferro*
Escola Nacional de Saúde Pública, Universidade Nova de Lisboa, Lisbon, Portugal
Contact: jperelman@ensp.unl.pt

Introduction

Timely entry into HIV care benefits HIV-infected individuals by decreasing morbidity and mortality, and also communities through its impact on infectiousness. Expanded testing could decrease HIV transmission, but poor engagement in care will limits the effectiveness of this strategy. Little is known about the extent to which diagnosed people are effectively linked to treatment. We conducted a systematic review of studies measuring the linkage to HIV care and its determinants.

Methods

We searched the MEDLINE and Google Scholar databases. We restricted our sample to the period after the use of highly-active antiretroviral treatments, and to high-income countries. The studies should be available as a full-text publication and published in English language. A score was attributed to each study on the basis of the sample size, well-defined linkage to care, number of settings, and study type.

Results

A total of 375 studies were identified, from which 45 were included. The successful linkage was defined using the time between diagnosis and the first CD4/viral load measure or the first specialist consultation. In most studies, a period of 3 months between these events was considered as a signal of successful linkage. Among the top-score studies, the linkage to care varied between 48% and 77% for a 3-months period. The main determinants of unsuccessful or delayed linkage were being non-white, uninsured, injecting-drug user, younger than 25 or elderly, suffering from mental health disease, living in a high-poverty area, and being diagnosed in a non-health care facility.

Discussion

The rates of linkage to care of HIV-diagnosed persons were relatively low, possibly contributing to the persisting high transmission of the disease and late entry into care. This review questions the relevance of expanded testing strategies without the guarantee of effective linkage. It also raises equity concerns because poor linkage is associated to socioeconomic circumstances.

Key messages

- The systematic review shows that the rates of linkage to care of HIV-diagnosed persons are relatively low, possibly contributing to the persisting high transmission and late entry into care
- This systematic review questions the relevance of expanded testing strategies without the guarantee of effective linkage, and raises equity concerns because poor linkage is associated to poverty

New strategies to implement flu vaccination in health workers: forum theatre in a university hospital

Alice Corsaro

P Laurenti[1], *A Corsaro*[1], *C De Meo*[1], *M Raponi*[1], *D Staiti*[1], *F Berloco*[2], *F Celani*[2], *M Corbo*[2], *W Ricciardi*[1]
[1]Institute of Public Health, Section of Hygiene, Rome, Italy
[2]Clinical Risk and Hygiene Direction; Gemelli Hospital, Italy
Contact: alice.corsaro12@gmail.com

Introduction

Every year outbreaks of influenza infects approximately 10% of the population leading to high morbidity and mortality, especially in settings like health care facilities. Even when the influenza vaccination has been recommended for health care workers (HCWs), in order to protect vulnerable individuals and reduce transmission, the average coverage of vaccinated HCWs of the past years has only been 28.6% in European Union (EU) and 15% in Italy, probably due to the lack of trust in vaccines, propagated by the media.

Methods

With the purpose of calculating the prevalence of vaccinated people, that in our setting was offered on site at no cost to all HCWs from the Preventive Medicine Service, we analyzed 2014 data recorded in the Service's register.

Results

Only 2% of the HCWs had been vaccinated in 2014–2015 season; 55% of them was physicians and 64.4% was males. The majority of those vaccinated were ≥ 40 years old, specifically 42.2% of them was ≤ 54, and 45.5% ≤ 70. Among those vaccinated, 20% worked in the Public Health Department while only 13% came from Clinic wards and 4,4% from Surgical wards.

Conclusions

Even though since 2009 the EU has recommended a minimal coverage of 75% in older age groups, people with chronic conditions and HCWs, vaccination rates in Italy are largely inadequate and our hospital doesn't differ from this scenario. In order to increase coverage rates and empower HCWs, we propose Forum Theatre as a possible innovative method; in this particular theatrical technique the public, after a lead debate, can enter the play and themselves find a solution to the issue in the performed scene. Through acting and participation, individuals become conscious of the problems at hand and entertaing a community dialogue about it.

Key messages

- Influenza vaccination coverage between HCWs is still inadequate compared with required levels and it's mandatory to implement it with new strategies of communication
- We propose Forum Theatre as a possible methodology of raising awareness HCWs on this theme

Implementation of a Bundle to reduce surgical site infections in colon and hip surgery

Sebastian Giacomelli

S Giacomelli, G Pieve
Department of Public Health Sciences, University of Turin, Turin, Italy
Contact: sebastian.giacomelli@unito.it

Background

The surgical site infection (SSI) is one of the most common complications for surgical patients. In Italy there is a national surveillance system (SNICh) established under the recommendations of the ECDC. In 2009 in Piemonte region, where the study was conducted, it was introduced a survey of a bundle for every patient under SSI-surveillance. The aim of this study is the evaluation of the incidence rate of the SSIs in relation to the implementation of this bundle from January to December 2012.

Methods

Data were collected from the Regional surveillance system SNICh that includes 29 hospitals and monitors 2 categories of surgical operations. The bundle evaluated the appropriateness of five surgical items: clinical parameters, pre-operative shower, trichotomy, antibiotic prophylaxis, body temperature. Univariate and multivariate analysis were conducted stratifying for hip surgery and colorectal surgery, with the purpose to identify a correlation between the implementation of the bundle and a decrease of the rate of SSIs.

Results

The regional surveillance system collected 3314 surgical operations during the year 2012. The represented categories were hip prosthetic surgery (1992 cases) and colon surgery (1322 cases). The bundle was implemented in 1114 and 671 operations respectively. From the analysis, the bundle resulted as a protective factor for the infection risk in colon surgery ($OR = 0{,}55$; 95% $IC = 0{,}38\text{-}0{,}78$). The main risk factors were: ASA Score ≥ 3 ($OR = 1{,}57$; 95% $IC = 1{,}10\text{-}2{,}24$) and contamination class ≥ 3 ($OR = 2{,}02$;95% $IC = 1{,}37\text{-}2{,}97$). In the hip surgery, the application of the bundle was not statistically associated to a decrease of the risk of infection ($OR = 0{,}69$;95% $IC = 0{,}42\text{-}1{,}14$).

Conclusions

The use of this bundle seems to reduce significantly the SSIs rate in the colon surgery. In future the bundle could be extended to other categories of intervention to reduce SSIs rate in Piemonte and verify its efficacy also in prosthetic surgery.

Key message

- This study describes the efficacy of a bundle in reducing SSIs rate and that could be implemented in other SSIs surveillances

What do teenagers know about sexually transmitted diseases?

Agnese Verzuri

A Verzuri[1], *N Gargiani*[2], *G Spataro*[1], *A Serafini*[1], *V De Leo*[2,3], *N Nante*[1,2], *G Messina*[1,2]
[1]Post-Graduate School of Public Health, University of Siena, Italy

[2]Department of Molecular and Developmental Medicine, University of Siena, Italy
[3]''Le Scotte'' Teaching Hospital, Siena, Italy
Contact: agneverzuri@gmail.com

Background

Sexually Transmitted Diseases(STDs)are one of the most significant issue of public health worldwide. The high incidence of these diseases can be attributed to risk behaviors especially in young people.

Our aim was determine the knowledge and the risk perception of STDs in the teenagers.

Methods

A cross-sectional study was conducted from May to June 2014; 3 high schools in Arezzo(Tuscany)were involved. An anonymous questionnaire already used for this purpose was administered. 390 questionnaires were exitmated for the sample size(EpiInfo ci 95%).

Descriptive and analytic analysis were conducted. Odds-Ratio, T-test and Anova were used for the analysis.

Results

602 questionnaires were used for the analysis. The mean age was 17.8 years(SD 1,01). Females were the 62.2% of the sample. Students at higher class showed a better knowledge on STDs than lower ones($p < 0.001$); males responded better than females(OR 1.48, $p < 0.05$).The 64.3% has given the correct definition of STD.

98.5% HIV,79.6% Syphilis, and 72.3% candidiasis were know as responsible of STDs; less knowledge was on HPV (41.5%) and Hepatitis (32.1%).

Regarding HPV lower class were well informed comparing with the higher(OR 0.55, $p < 0.001$).

Sharing of needles among drug users(92.5%), and relationships without using condoms(78.2%) were recognized as high-risk behaviors for contracting STDs. 66.4% of respondents identified the lack of knowledge as a risk for STDs. The 85.4% used condoms with casual partners, the percentage drops to 42.9% if the partner was habitual. Only 55.9% knew that the contraceptive pill does not protect against STDs.

Conclusions

The interviewed have a good general knowledge about STDs, however, there are a lot of lacking about certain types of STDs and risk behaviors potentially dangerous. For the guys knowledge of the problem is essential to avoid risky behavior, so It becomes important working on projects of information to promote a culture of prevention, especially among young.

Key messages

- Teenagers have good general knowledge, but little on specific topics
- Lack of knowledge is considered a risk factor so it is important to inform the younger about Sexually Transmitted Diseases

Is government interference in individual choice for or against vaccination justified?

Olga Visser

S van der Burg[1], O Visser[2], J Hautvast[2], M Hulscher[1]
[1]Radboud University Medical Center, Institute for Health Sciences, IQ healthcare, Nijmegen, The Netherlands
[2]Radboud University Medical Center, Institute for Health Sciences, Department of primary and community care, Nijmegen, The Netherlands
Contact: ovisser@ggdru.nl

Introduction

Government interference in individual choice is generally considered uncontroversial when it prevents individuals from making choices (1) that are ill-informed or which they have not deliberated carefully, and (2) with which they will harm themselves or others. These conditions raise the question if governmental steering could or should be applied in the field of vaccination acceptance. In a recent qualitative study on determinants of the acceptance of a pertussis cocooning vaccination participants had an interesting perspective on government interference in individual freedom to choose. Therefore, in this study we aim to qualitatively explore this perspective in the context of public health ethics and present it in relation to the ongoing debate on government interference.

Methods

We conducted 13 focusgroups and six individual semi-structured interviews with members of target groups for pertussis cocooning (i.e. parents, maternity assistants, midwives and paediatric nurses). The topic list was based on literature review and a barrier framework. All interviews were transcribed verbatim and analysed on thematic content, together with an ethicist.

Results

Many respondents feel inadequately informed and incapable of deliberating, but they strongly support voluntary vaccination and go to considerable effort to find relevant information and deliberate their choices. Furthermore, respondents disagreed with the government about what harm involves and how to prevent it.

Conclusion

This article shows why the two preconditions for government interference may raise moral unease if applied in the field of vaccination acceptance. Government interference with the choice of the target groups for vaccination, would counter their explicit wish to make their own deliberation. Furthermore, if the government uses the harm-prevention argument to steer the public's choice, it fails to acknowledge the disagreement about what harm involves. We suggest that it is better to help the public weigh information from diverse sources and make choices reflecting their values than to use the public's indecisiveness as a reason to interfere with their choices. This responds to the public's own support of voluntary vaccination, acknowledges the possibility of disagreement, and helps maintain reliable acceptance of vaccination in the future.

Key messages

- The two preconditions for government interference may raise moral unease if applied in the field of vaccination acceptance
- We suggest that it is better to help the public weigh information from diverse sources and make choices reflecting their values

Factors associated with smoking status among tuberculosis patients in Armenia

Arusyak Harutyunyan

A Harutyunyan, N Truzyan, V Petrosyan
School of Public Health, American University of Armenia, Yerevan, Armenia
Contact: aharutyunyan@aua.am

Background

Tuberculosis (TB) is one of the greatest killers worldwide due to a single infectious agent. Smoking is one of the most important risk factors that favors the progression from latent TB infection to pulmonary disease, increases the probabilities of relapse, and increases TB case fatality. This study evaluated factors associated with smoking among TB patients.

Methods

All the patients with drug sensitive pulmonary TB that started continuation phase of treatment in March-December 2014 were recruited for the randomized control trial in Armenia. Data were collected through interviewer administered surveys using a structured questionnaire. The study used descriptive statistics and logistic regression for data analysis.

Results

Overall, 395 TB patients participated in the study with mean age 46.7 years ($SD = 15.4$) and 78.0% males. Smoking prevalence was higher among males compared to females (67.5% vs. 5.8%; $p < 0.001$). The mean number of cigarettes smoked daily was 19.5 ($SD = 12.5$). About 80% of current non smoking males reported to be past smokers which resulted in 75.4% lifetime smoking prevalence with average smoking history of 27.9 years ($SD = 14.5$). The proportion of recurrent TB among smokers was significantly higher compared to non-smokers (24.4% vs. 13.8%, p = 0.008). Multiple logistic regression analysis showed that the odds of being smoker was higher among males (OR = 25.0, $p < 0.001$), heavy alcohol users (OR = 2.48, p = 0.002), younger patients (OR = 1.01, p = 0.086) and those with lower wealth score (OR = 1.17, p = 0.021).

Conclusions

Smoking and TB are two major health problems and share common risk factors including male gender, alcohol use and lower socio-economic status. Smoking is one of the most modifiable exposures and is a contributor for morbidity and mortality due to TB. Armenia needs to coordinate tobacco and TB control programs to raise awareness about TB and smoking association and provide quitting assistance to smoking TB patients.

Key messages

- Tobacco smoking and TB are the two major health problems and share common risk factors including male gender, alcohol use and lower socio-economic status
- Joint efforts should be made to coordinate national tobacco and TB control programs to raise awareness about the TB and smoking association and provide assistance for quitting to smoking TB patients

Ebola training assessment for nursing students, Albania, 2015

Luisa Sodano

LS Sodano[1], ES Spini[2], AP Popa[2], LM Manenti[2], AG Gjoshi[2], FS Spada[2], GR Rocco[3], DD D'Alessandro[4]
[1]Health Direction, ''San Camillo Forlanini'' Hospital, Rome, Italy
[2]''Our Lady of Good Counsel'' Catholic University, Tirana, Albania
[3]Direction, 'Father Luigi Monti' Training Centre of Studies and Health, Rome, Italy
[4]Department of Civil, Building and Environmental Engineering, ''Sapienza'' University, Rome, Italy
Contact: sodanoluisa@libero.it

Background

Training assessment is a crucial step in nursing education. Ebola outbreak in West Africa offered a chance to test evaluation tools at "Our Lady of Good Counsel" Catholic University in Albania.

Objectives

To evaluate knowledge on Ebola virus disease (EVD) before and after a dedicated tutorial, which involved same level nursing students following two courses, Elbasan (E) and Tirana (T). Students attended two sessions of a seminar by the same teacher in January (E) and February (T) 2015; teacher knew E results before T session. Students' knowledge on EVD was tested by an anonymous true/false questionnaire of 25 questions (Q) on basic and clinical features (6 Q), transmission risk (9 Q), prevention (10 Q). Acceptable knowledge was considered to be at least 70% of correct answers. Knowledge mean score (MS) was compared before and after tutorial using t-Student test.

Results

Overall, 88 students (33 in E, 55 in T) were enrolled before and 87 (28 in E, 59 in T) after seminar. Students in E and in T were homogeneous by sex (about a third male) and age (mean age ∼22 years); missing excluded, in T there were 17 Italian students (34.7%) before and 14 (30.4%) after tutorial. Mean overall score (MOS) (± standard deviation, SD) in E was 12.3 (±2.2) before and 15.1 (±3.1) after seminar ($p < 0.01$), in T 13.0 (±2.4) before and 17.0 (±3.4) after tutorial ($p < 0.01$). After seminar MOS was higher in T than in E ($p < 0.05$). In T MOS was homogeneous between Albanian and Italian students both before (12.6 vs 13.4, p = 0.25) and after seminar (17.5 vs 17.7, p = 0.84). The lowest MS was obtained for transmission risk with a significant improvement after tutorial (E 3.1 vs 4.7, $p < 0.01$; T 3.7 vs 4.9, $p < 0.01$).

Conclusions

The tutorial on EVD was effective and the questionnaire was an useful evaluation tool; knowledge gap was mainly about transmission risk. Teacher's improved competence in EVD training after E session could explain the best performance in T.

Key messages

- Tutorials on Ebola virus disease allowed to assess training evaluation tools in nursing education
- Nursing students' knowledge on Ebola virus disease can improve by dedicated tutorials, also in the most critical area that is transmission risk

Confirmation status of positive blood donors in Turkey: Missed opportunity in blood bank screening

Gül Ergör

H Bahadır[1], Ç Çiftçi[2], Y Doğan[2], G Ergör[1]
[1]Department of Public Health, Dokuz Eylül University Faculty of Medicine, Izmir, Turkey
[2]Department of Medical Microbiology, Dokuz Eylül University Faculty of Medicine, Izmir, Turkey
Contact: hande_totallyrs@hotmail.com

Background

Hepatitis B (HBV) and C viruses (HCV) are the leading causes of chronic hepatitis, cirrhosis and hepatocellular carcinoma which cause millions of deaths annually. Blood donors are screened regularly for these agents but there is no follow up after screening. The purpose of this study is determine the frequency of undergoing confirmation of the blood donors whose anti-HCV and / or HBsAg screening tests are positive.

Methods

Blood donors who were admitted to Dokuz Eylul University Hospital from January 2012 to April 2014 with positive screening test results for HBsAg and/or anti-HCV have been included in this cross sectional study. Blood donors with positive results were interviewed by phone and their confirmation status was assessed.

Results

Of 167 individuals, 65 were HBsAg-positive, 102 were anti-HCV-positive. Of the HBsAg-positives 83.1% and of the anti-HCV-positives 95.1 stated that they had received a text-message about applying for confirmation in any health facilities. Majority of HBsAg and anti-HCV-positives had admitted to health facilities for the confirmatory test (respectively 81.5%, 75.3%). Confirmatory test results were true positive for 56.8% of HBsAg-positives and 19.2% of anti-HCV-positives. Mean age of individuals who took confirmatory test was significantly higher ($p < 0.05$) and having any health insurance had a significant effect ($P < 0.05$).

Conclusions

In this respect we have seen that for HBV almost 1 in 4 donors and for HCV almost 1 in 5 donors who are screened positive did not apply for confirmation.

Key message

- Although the main aim of screening blood donors is to protect the recipient, it should be also used as an opportunity to find HBV and HCV positive individuals who are unaware of their status

İn Eskişehir Rural Students Hand Hygiene Knowledge And Practice: Before-after intervention study

Emine Ayhan

Ayhan[1], Gökler[1], Işıklı[1], Önsüz[1], Özay[1], Aydın[2], Durmaz[2], Kalyoncu[1]
[1]Eskişehir Osmangazi University Faculty of Medicine -Department of Public Health Eskişehir Turkey
[2]Eskişehir Osmangazi University Faculty of Medicine, Department of Microbiology and Clinical Microbiology Eskişehir Turkey
Contact: dr.emineayhan@gmail.com

Objective

As an important part of personal hygiene; hand hygiene is an effective way to prevent infection diseases. World Health Organization (WHO) reports that, development of hygiene and hand-washing education reduces 45% of diarrhea cases. Development of hygiene and hand-washing studies are simple and cost effective applications, moreover, it is significant to reduce treatment costs and of school absenteeism.

Aim of the study was to evaluate the knowledge and implementation of students about hand hygiene in Beylikova, Eskişehir and to conduct an education about hand hygiene, and also to evaluate the effectiveness of the education.

Material and Method

This research was conducted in two periods in Beylikova, Eskişehir between March - April 2012 and March - April 2013. Of the 151(82.7%) of 173 students attending to the 5th and 7th classes were included in the first study group. Of the 164(97.6%) of 168 students attending to the 6th and 8th classes formed the second study group. Data were collected via a questionnaire including 11 questions. In the first period of the study, also swab samples collected from hands to evaluate hand hygiene. Data were analyzed by K-means clustering, ROC analysis and Chi-Squared test.

Results

In the first period of the study, 81.5%, of the students had adequate knowledge about hand hygiene while it was 94.5% in the second period. In the first period of study, application adequacy of the students about hand washing was 63.0%, while it was 66.5% in the second period. In the 76.2% of the swap samples, bacterial growth has been identified and generally showed permanent flora members. Of the identified agents, 70.2% was coagulase-negative Staphylococcus, 7.3% Viridans Streptococci, 5.3% Corynebacterium species, 4% Staphylococcus aureus, and 2.6% Enterococci produced.

Conclusion

Educations about hand hygiene should be continued in primary schools.

Key message

- Education is important for improving hand hygiene practice

The role of vaccination in the prevention of invasive bacterial diseases in Italy

Michael Belingheri

M Belingheri[1], F Laviola[2], MT Filipponi[2], M Faccini[2], MC Bonazzi[1]
[1]Department of Health Sciences, University of Milano Bicocca, Italy
[2]Local Health Agency of Milan, Milan, Italy
Contact: m.belingheri2@campus.unimib.it

Background

The invasive bacterial diseases (IBD) are associated with a high fatality rate and frequent complications often serious and disabling, especially among young and elderly people.

In order to assess the role of the current prevention campaign and the potential impact of new vaccines, we collected and examined data on the surveillance of invasive disease.

Methods

From the regional surveillance system of Lombardy (MAINF), we extracted and analyzed data about cases of IBD in the territory ASL Milan (about 1.500.000 people) from 1 January 2009 to 30 June 2014, adding cases 2007–2008 only for meningococcal, for a total of 450 cases. All of our data were confirmed cases according to the latest European validation criteria.

Results

The most frequent pathogen was S. pneumoniae (308 cases), which affected the pediatric and elderly age group. N. meningitidis was responsible for a fewer number of cases (62) and predominantly affected children, adolescents and young adults. H. influenzae was instead the least frequent isolated bacterium (11) and usually affected children under five years.

Conclusions

Although limited, our data confirmed that vaccinations are a fundamental tools for the prevention and control of meningitis and invasive diseases. Among the results, the limited series of disease due to H. influenzae is one of the most indicative data. The little number of cases of group C meningococcal disease in children and the very small percentage of heptavalent pneumococcal vaccine serotypes, circulating in the same age group, are a further confirmation of the usefulness of vaccination campaigns in the prevention of these diseases.

Moreover, about the future vaccination schedule, our data suggest a potential significant impact on the global epidemiology with the introduction of new vaccinations, like men B vaccine among infants or pneumococcal vaccine in elderly people.

Key message

- Vaccinations are an effective tool to reduce the burden of invasive bacterial disease and a focused strategy for infants and elderly people should be improved

The effect of a warning message on the packaging of poultry in the Netherlands: a 2014 survey

Laura Antonise-Kamp

L Antonise-Kamp[1], HJM Aarts[1], AJ Schuit[1], A Timen[1], DRM Timmermans[1], WP van der Vossen[2], DJMA Beaujean[1]
[1]National Institute for Public Health and the Environment, Bilthoven, The Netherlands
[2]The Netherlands Nutritional Centre Foundation, The Hague, The Netherlands
Contact: laura.kamp@rivm.nl

Background

In the Netherlands, approximately 680.000 people suffer from foodborne infections every year with poultry being an important source. It has been estimated that unsafe food-handling behaviour is associated with 40–60% of foodborne infections. To reduce foodborne infections, a warning message containing safe food-handling instructions is required on the packaging of raw poultry products by Dutch law since 2001. The main purpose of this study was to examine whether this warning message affects consumer food-handling behaviour.

Methods

A survey was conducted among 1235 participants. To be included in the study, respondents needed to both eat and prepare poultry. There were three primary outcome measures: knowledge of safe food-handling, current food-handling behaviour, and intention to improve food-handling behaviour after reading the warning message.

Preliminary results

A total of 514 respondents participated in the study. 84.6%; $n = 435$) of respondents reported they were familiar with the warning message. A majority (81,1%; $n = 417$) perceived the warning message as important. Both respondents familiar with the warning message and respondents not familiar with it, reported good food-handling behaviour ($m = 4.2$; $SD = 0.47$; range 1–5), with respondents familiar with the warning message having a slightly better behaviour ($m = 4.2$; $SD = 0.45$) than respondents not familiar with it ($m = 4.0$; $SD = 0.52$) ($p < 0.001$). 22% ($n = 113$) of respondents reported that they intend to improve their food-handling behaviour after reading the warning message.

Conclusions

Based on this study, we recommend to maintain a warning message on the packaging of poultry as a preventive measure. Most consumers indicate that they read the warning and feel it is important. In addition, it motivates nearly a quarter of the respondents to improve their food-handling behaviour. Further research to examine if a different design or placement on the package could increase the effect of the warning, could be useful.

Key messages

- Consumers consider a warning message containing safe food-handling instructions on the packaging of poultry important
- A warning message containing safe food-handling instructions on the packaging of poultry has the ability to motivate consumers to improve their food-handling behavior

Predictors of Infectious diseases in Traveller Adults in Ireland (2008): A Multivariate Analysis

Brigid Quirke

BB Quirke, LE Daly, MM Heinen, CC Kelleher
School of Public Health, Physiotherapy and Population Science, University College Dublin, Dublin, Ireland
Contact: brigid.quirke@ucdconnect.ie

Background

Indigenous ethnic minority groups globally experience similar health challenges, including higher risks of infectious diseases. Our objectives in this analysis were to identify what environmental, socio-demographic and lifestyle factors were predictive of infectious disease in Irish Travellers, an indigenous minority population.

Methods

We analysed 1648 adult health status records from the 2008 All Ireland Traveller Health census study (AITHS). Variables related to environmental circumstances (i.e. drinking and lodged water, sanitation, electricity, post, refuse collection; perceptions of safe or healthy environment and problems with rats and rubbish dumping); lifestyle variable (smoking status) and demographic variables (age, sex and education level) in relation to four doctor diagnosed infectious diseases; of chest (CI); of ear, nose and throat (ENT), of urinary tract (UTI) and of diarrhoea and vomiting (D+V). We employed logistic regression analysis, using stepwise backward Likelihood ratio-method.

Results

At univariate level almost all environmental factors were significantly associated with health outcomes. In the final multivariate age and sex adjusted logistic models, smoking remained significant ($p < 0.005$) for all diseases: CI (OR 2.63, 95%CI 2.00-3.45); ENT (OR 1.47, 95%CI 1.20-1.88); UTI (OR 2.12, 95%CI 1.53-2.92) and D+V (OR 1.86, 95%CI 1.28-2.69). Lodged water remained significant for three diseases: CI (OR 1.65, 95%CI 1.18-2.29); ENT (OR 1.53, 95%CI 1.05-2.21) and UTI (OR 1.93, 95%CI 1.35-2.77). The pattern of significance varied for the other environmental variables.

Conclusions

Adult infectious diseases among Irish Travellers are predicted by both lifestyle and environmental conditions and are largely not explained by socio-demographic status.

Key messages

- The findings will be used to inform an urgent review of Traveller accommodation policy and provision in Ireland
- The outcomes will be used to promote a culturally appropriate smoking cessation programs for Travellers in Ireland

Literature review to define a framework to monitor infectious diseases in migrants in Europe

Paola Ballotari

A Pezzarossi[1,2], P Ballotari[1,2], S Declich[3], M Dente[3], R Flavia[3], T Karki[3], C Napoli[3], T Noori[4], A Chiarenza[1], PG Rossi[1,2]
[1]AUSL Reggio Emilia, Italy
[2]Arcispedale S. Maria Nuova, IRCCS, Reggio Emilia, Italy
[3]Istituto Superiore di Sanità, Roma
[4]ECDC, Stockholm, Sweden
Contact: paola.ballotari@ausl.re.it

Background

Knowing the occurrence of infectious disease in migrant populations is necessary to understand and control their diffusions. Migrants in the European Union (EU) experience barriers to health care and preventive services, but also may be target of specific infectious diseases screening campaigns. Indeed the occurrence of infections and related disease may be difficult to measure and to compare with natives.

Objectives

- to identify possible mechanisms affecting the number of reported infections or diseases (under-reporting, over-reporting, biases in reporting);
- to reveal if and how screening programs for infections and infectious diseases can introduce biases in occurrence reporting;
- to analyse accuracy of the migrant denominator estimates.

Methods

We conducted a systematic reviews for each objective. We searched Pubmed for papers relevant to the topics including: case report, descriptive, observational, experimental studies, reviews, guidelines or policy documents; published after 1994; language English, French, Spanish, German; area EU/ EEA (European Economic Area).

Results

We identified 532 papers 67 of which were included in the review.

Undocumented immigrants tend to limit access to health care and preventive service, but have higher occurrence of several infectious diseases.

Legislation and right to access to health care influence both accuracy/availability of denominator and correspondence between numerator and denominator.

Incompleteness of denominator tends to underestimate at risk population and numerator includes case that are not included in denominator, overestimating disease occurence.

Restriction to health care access and low responsiveness cause under-reporting. Screening for asymptomatic diseases causes over-reporting.

Anamnesis of travels and immigration increase the a priori probability of disease and suggests diagnosis.

Conclusions

Both under-diagnosis and over-reporting have been reported for infectious disease in migrants.

Key messages

- Knowing the occurrence of infectious disease in migrant populations is necessary to understand and control their diffusions
- Barriers to health services may cause under-diagnosis and under-estimation of infectious disease occurrence in migrants, while the under-reporting may be minor once the migrant accessed the services

Depressive symptoms among TB patients in Armenia, 2015

Nune Truzyan

N Truzyan[1], V Petrosyan[1], A Harutyunyan[1], V Khachadourian[2], M Thompson[3]
[1]School of Public Health of the American University of Armenia, Yerevan, Armenia
[2]Fielding School of Public Health, Department of Epidemiology, University of California, Los Angeles, USA
[3]Department of Public Health Sciences, College of Health and Human Services, University of North Carolina at Charlotte, Charlotte, USA
Contact: tnune@aua.am

Background

Tuberculosis (TB) remains a leading public health concern and an infectious cause for high rates of morbidity and mortality worldwide. Lifetime prevalence of depression in general population is 10% which increases among patients with certain conditions, including TB. This study aimed to investigate the level and factors associated with depression among TB patients in Armenia.

Methods

This baseline/follow-up panel survey as a part of stratified cluster randomized controlled trial was conducted among 395 drug-sensitive pulmonary TB patients at the start and at the end of the continuation phase of TB treatment. All consenting TB patients completed a modified version of the Center for Epidemiological Studies Depression (CES-D) scale validated in Armenia with the negatively formulated 16-items and recommended 13 cutoff. Patients' self-reported health (SRH) was measured by dichotomizing the 100-point scale as poor/ very poor (≤ 40) versus fair/good/very good (>40).

Results

The prevalence of depressive symptoms (DS) at the beginning of the continuation phase of TB treatment was 22% decreasing to 12% ($p < 0.001$) at the end of the treatment. At baseline, being female ($OR = 6.5$, $p < 0.001$), having negatively affected relationship within family because of TB ($OR = 5.7$, $p = 0.001$), poor SRH ($OR = 5.0$, $p = 0.002$), high school or lower education ($OR = 2.4$, $p = 0.04$), being HIV positive ($OR = 3.1$, $p = 0.06$), and alcohol abuse ($OR = 2.0$, $p = 0.13$) were associated with DS. About half (49%) of TB patients reported improved DS at follow-up compared to baseline. DS improvement was associated with being female ($OR = 2.5$, $p = 0.006$) and lower stigma score at baseline ($OR = 0.9$, $p = 0.06$).

Conclusions

TB patients even in non-infectious stage of disease are substantially depressed. Actions to reduce depressive symptoms among TB patients should include screenings and appropriate psychological support. Women TB patients were more likely to be depressed but more likely to get better by the end of the treatment than man.

Key messages

- Families with TB patients need psychological support to reduce stigma and the prevalence of depressive symptoms
- Women TB patients are more likely to be depressed but more likely to get better by the end of the treatment than men

Cost effectiveness analyses of various seasonal influenza vaccines available for elderly in Germany

Eckhardt Petri

Eckhardt Petri
Novartis Influenza Vaccines GmbH, Marburg, Germany
Contact: eckhardt.petri@novartis.com

Limited vaccine responsiveness due to immunosenescence and seasonal mismatch of vaccine antigens with circulating viruses are two factors resulting in comparably low vaccine effectiveness frequently observed in elderly. This study aims to evaluate the medical and economic value of several available new vaccines in this most vulnerable age group: quadrivalent influenza vaccine (QIV), intradermal vaccine (IDTIV), and MF59-adjuvanted vaccine (ATIV), relative to the previous standard inactivated trivalent influenza vaccine (TIV).

Utilizing a probability-based decision-tree model the medical and economic outcomes for alternative vaccines in elderly (65 years+) in Germany was analyzed from the payer's perspective. The mean TIV seasonal vaccine effectiveness (58%) was taken from a recent Cochrane review. Evidence-based assumptions for relative effectiveness of alternative vaccines compared to TIV were as follows: QIV (epidemiological data) 5.7%, ID-TIV (re-analyses of immunogenicity data) 16.5%; ATIV (observational effectiveness data from three consecutive seasons) 25.0%. Incremental cost-effectiveness ratios (ICER) were calculated in Euro per quality adjusted life year (QALY) gained for each vaccine relative to no vaccination.

The calculated ICER (€/QALY) in elderly (65 years and older) were as follows: TIV 1,951, QIV 1,688, IDTIV 1,236 and ATIV 925. Assuming an average dose price of 9.20 € per TIV price premium limits for being still cost-saving were calculated for QIV, IDTIV and ATIV as 9.85 €, 11.09 €, and 12.06 €, respectively.

Modified new influenza vaccines can be cost-saving when substituting standard TIV in seasonal vaccination of elderly. Future vaccines combining diverse approaches already available could address the medical need and may further improve seasonal influenza vaccination cost-effectiveness.

Key messages

- Modified seasonal influenza vaccines address the medical need of better vaccine effectiveness in elderly to various degrees and bear potential for cost-savings in health-care systems
- Addressing the medical need of better influenza protection of elderly and subsequently gaining medical and economic benefits is achievable by MF59 adjuvant and combinations of available approaches

Improving health care access for Hepatitis B in high prevalence migrant groups

Sarah Salway

S Salway[1], A Vedio[2], E Liu[1], A Lee[3], J Horsley[4], E Such[1]
[1]ScHARR, University of Sheffield, Sheffield UK
[2]Sheffield Teaching Hospitals, Sheffield, UK
[3]Public Health England, UK
[4]Sheffield City Council, Sheffield, UK
Contact:

Background

Hepatitis B – a serious infectious disease caused by a virus transmitted in blood and body fluids - is common among migrant populations across Europe, particularly Chinese and Far East Asian communities (being found in around 1 in 10 people). However, access to healthcare is often low among these populations and late diagnosis and delayed treatment is widespread. Research is needed to inform development of effective interventional strategies.

Methods

A systematic narrative review synthesised international evidence on factors shaping access to Hepatitis B services and past interventions. Next, community focus groups ($n = 6$), in-depth patient ($n = 20$), commissioner ($n = 8$) and practitioner ($n = 20$) interviews were conducted in the UK. Data analysis was informed by the concepts of 'candidacy' and 'dissonance'. Participatory stakeholder workshops considered study findings alongside current service models to identify avenues for improvement.

Results

The review found a past emphasis on individual knowledge and motivations, but that effective interventions addressed wider structural barriers. In the UK we found a wide set of influences, including: persistent effects of discriminatory practices and stigma experienced in China/Taiwan; ambivalent attitudes towards the healthcare on offer and fear of ''becoming a patient''; logistical barriers and miscommunication; missed opportunities and active dismissal by practitioners. Recent advances in clinical management of Hepatitis B were not reflected in practitioners' knowledge and care. Hepatitis B healthcare for migrant groups competes against other commissioning and clinical priorities.

Conclusions

Access to testing and treatment for Hepatitis B among migrant groups is shaped by factors at individual, family, community and health-service levels. Interventions aimed at improving uptake must address the inter-play of these wider determinants. Such development is, however, challenging against a backdrop of contracting budgets.

Key messages

- Sociocultural, economic and health system factors that act as barriers to migrant groups accessing healthcare for Hepatitis B are identified
- Avenues for improved access are discussed, along with the importance of broader socio-political contextual factors which can constrain action on healthcare equity for migrant and minority groups

Knowledge, attitude and behaviour of Belgrade medical students related to HIV/AIDS

Tamara Savu

EM Vowa[1], J Jankovic[2], T Savu[3]
[1]Center School of Public Health and Health Management, Faculty of Medicine, University of Belgrade, Belgrade, Serbia
[2]Institute of Social Medicine, Faculty of Medicine, University of Belgrade, Belgrade, Serbia
[3]Faculty of Medicine, University of Belgrade, Belgrade, Serbia
Contact: tamarasavu1992@gmail.com

Background

The HIV epidemic in the Republic of Serbia has a low prevalence (1.7 new HIV infections per 100,000) and is well controlled. However, adoption of the primary prevention measures like the use of condoms among adolescents and young people is still low and therefore in-depth research about HIV/AIDS knowledge, attitudes and behaviors, especially of young people is needed. The aim of this study was to determine the knowledge, attitudes and behavior of students of the Medical Faculty in Belgrade in the field of HIV/AIDS.

Methods

A cross-sectional study was conducted in a sample of 400 students (200 first year and 200 fifth year) of the Faculty of Medicine, University of Belgrade during the 2013/2014 academic year. Logistic regression was used for data analysis.

Results

Concearning the most common misconceptions related to HIV transmission five year students were better informed about HIV transmission via mosquito bite (OR = 2.23; 95% CI = 1.43-3.47) and HIV transmission via food sharing (OR = 3.73; 95% CI = 1.93-7.21) compared to younger counterparts. Fifth year students also had more appropriate attitude to the following statements: 'persons with HIV should not be treated', 'persons with HIV are to blame for their condition' and 'persons with HIV should be isolated' (OR = 2.06, OR = 2.53 and OR = 2.84 respectively). Furthermore, fifth year students had more knowledge about the location of HIV test centers than first year students (the difference was highly significant, OR = 4.12). Eventually fifth year students had four and a half times more benefit from HIV training and less need for additional education about HIV (OR = 0.42; 95% CI = 0.28−0.64).

Conclusions

Significant differences were observed between first and fifth year students regarding knowledge, attitudes and practices about HIV/AIDS. Medical students, especially first year students have misconceptions and a lack of HIV/AIDS knowledge and consequently their knowledge and attitudes need to be improved.

Key messages

- The fifth-year medical students of medicine have more knowledge, more correct attitudes and behavior with regard to HIV/AIDS than their younger counterparts
- There is a need for greater AIDS with specific focus on first graders/AIDS with specific focus on first graders

Y.K. Poster Displays: Chronic diseases

Need for Proper Training for Assessing Dependency and Exposure of Smoking

Kadir Mutlu Hayran

KM Hayran, D Yuce, I Celik, M Erman
Department of Preventive Oncology, Hacettepe University Cancer Institute, Ankara, Turkey
Contact: kmhayran@gmail.com

Background

WHO's MPOWER package describes key steps for tobacco control. Offering help to quit is vital. Physicians should have adequate understanding of level of dependence (Fagerstrom test for nicotine dependence-FTND) and exposure (pack year-PY). We evaluated knowledge level of physicians at smoking cessation departments (SCD) about these two essential measures.

Methods

Each of 150 physicians calculated FNTD and PY of randomly selected 5 cases from 50 fictitious cases. Responses were compared with actual FTND and PY for accuracy. Generalized estimating equation (GEE) modeling with unstructured correlation matrix was used to assess predictors of successful coding and calculate adjusted odds ratios (ORadj) and coding accuracy adjusted for group effect (Accadj).

Results

Overall accuracy was 78% for FTND and 42.8% for PY. Probably because it is an midpoint value on the FTND range (2-9 in this sample) and may result from the combination of different questions on that scale, a Fagerstrom score of 4, was the most difficult (2.4 to 6.4 times more difficult when compared to other scores per ORadj) to correctly calculate (accuracy, Accadj = 62% [50%-73%]). For PY, values >50 were the most difficult (Accadj=%17 [%12-%25]) to score (3.2, 4.5 and 3 times more difficult when compared to <=10, 10–30, and 30–50 PY groups, respectively.)

Conclusion

As it is a breakpoint cut-off in labeling the dependence level, miscalculating a Fagerstrom score of 4 by 1 or 2 points in different directions may lead to assessing dependency of the patient incorrectly. Accuracy of PY calculation was observed to be worse than FTND scoring. This study revealed that physicians working at SCDs may not be not be intuitively equipped with necessary knowledge for assessing the dependence and applying the correct algorithm for smoking cessation interventions. More in-service training for every aspects of smoking cessation treatments is necessary.

Key messages

- Physicians working at SCDs may not be not be intuitively equipped with necessary knowledge for assessing the dependence and applying the correct algorithm for smoking cessation interventions
- More in-service training for every aspects of smoking cessation treatments is necessary

Factors that predict remission of infant eczema

Laura Beate Von Kobyletzki

L von Kobyletzki[1,2], C Apfelbacher[3], J Schmitt[4], Å Svensson[1]
[1]Lund University, Skåne University Hospital, Department of Dermatology, Malmö, Sweden
[2]Karlstad University, Department of Public Health Sciences, Karlstad, Sweden
[3]Medical Sociology, Institute of Epidemiology and Preventive Medicine, University of Regensburg, Germany
[4]Centre for Evidence-based Healthcare, Medizinische Fakultät Carl Gustav Carus, TU Dresden, Germany
Contact: lbkoby@gmail.com

Background

The prognosis of infant atopic dermatitis (AD) is important for decision making of healthcare professionals, and stakeholders. The aim of this study was to investigate predictors for remission of infant AD until school age.

Methods

A systematic review was carried out of clinical and epidemiological studies investigating the effect of filaggrin gene (FLG) loss-of-function mutations, sex, exposure to pets, topical anti-inflammatory treatment, disease severity, and atopic sensitization during infancy on complete remission of infant-onset AD until 6–7 years of age. Systematic electronic searches until September 2013, data abstraction, and study quality assessment (Newcastle-Ottawa Scale) were performed.

Results

From 3,316 abstracts identified, 2 studies of good study quality were included with a total of 4230 patients. Parental allergies and sex did not significantly affect remission. For non-remission of AD, the included articles reported an association with any atopic sensitization at 2 years old (adjusted odds ratio [aOR] 2.76; 95% confidence interval (CI) 1.29–5.91), frequent scratching with early AD (aOR 5.86; 95% CI 3.04–11.29), objective severity score at 2 years old (aOR 1.10; 95% CI 1.07–1.14), and exposure to pets (cat OR 2.33; 95% CI 0.85–6.38).

Conclusions

It is largely unknown which factors predict remission of infant AD. This is a highly relevant research gap that hinders evidence based decision making regarding secondary prevention of AD. Based on current knowledge, severe cases of AD and cases with sensitization are risk groups which should be especially focused on in order to increase remission.

Changes in life style should not be recommended based on current evidence. Early successful treatment maybe the best option for secondary prevention of AD.

Key messages

- This is a highly relevant research gap that hinders evidence based decision making regarding secondary prevention of AD and more well performed longitudinal studies are needed
- As yet, there is no evidence that families need to adjust their life style for secondary prevention of AD. Early successful treatment maybe the beneficial for secondary prevention of AD

Ageing and leading causes of death in the region of Pleven, North Bulgaria for 10 years period

Gena Grancharova

D Tsanova, S Aleksandrova-Yankulovska, G Grancharova
Faculty of Public Health, Medical University of Pleven, Bulgaria
Contact: gena_grancharova@hotmail.com

Background

Cardiovascular diseases (CVDs) are the leading global causes of death, accounting for 17.5 million deaths per year. There are very big variations between different countries and regions. These trends take place on the background of continuous process of population ageing worldwide. The proportion of people over 65 years globally has increased from around 5% in 1950 to 8% in 2013.

This report aims at investigation and comparative analysis of indicators of ageing and trends in CVD deaths in the region of Pleven and Bulgaria for 10 years period.

Methods

A descriptive epidemiological study was performed based on the data of Bulgarian National Statistical Institute and European Health for All database to calculate the indicators for CVD deaths, proportion of people over 65 years and basic indicators of ageing: Old dependency ratio (ODR) and Ageing index (AI) for the period 2004–2013. Trends of these indicators were compared for Bulgaria and for the region of Pleven.

Results

During the period 2004–2013 CVDs cause over 60% of all deaths in Bulgaria, and in the region of Pleven they represent over 70%. At the same time the process of population ageing in the region has deepened – the proportion of people over 65 years has grown from 20.4% in 2004 to over 24% for 2013. The most informative characteristics of ageing AI and ODR indicate expressed negative trends. ODR has increased from 31% for 2004 to 38% for 2013 and AI - from 148% to 180%. The death rate for CVDs has been also on the increase - from 1152 per 100000 people for 2009 to 1245 for 2013.

Conclusions

Bulgaria is among the counties with most serious challenges related to the process of ageing and high cardiovascular diseases and deaths. Cost-effective interventions that are feasible to be implemented even in low-resource settings have been identified for prevention and control of cardiovascular diseases. These should be among the priorities of public health policy in Bulgaria and in the region of Pleven.

Key messages

- Recent demographic trends have being leading to ageing and increased cardiovascular deaths that were more prevalent in Pleven region as compared to Bulgaria and other regions
- Regional health policies, prevention of different risk factors and reduction of cardiovascular risk may change the rate of cardiovascular deaths and disability

Reformulation by SMEs: achievements and failures outside public health governance

Corina-Aurelia Zugravu

CA Zugravu[1], A Macri[2], PM Apostu[3], F Soptica[3]
[1]Dept of Hygiene, University of Medicine and Pharmacy Carol Davila, Bucharest, Romania
[2]National R&D Institute of Food Bioresources, Romania
[3]Faculty of Food Science and Inginering, Dunarea de Jos University of Galati, Romania
Contact: dr_corinazugravu@yahoo.com

Improving the profile of processed food is considered a promising approaches to tackling the burden of non-communicable disease. Food reformulation aim at reducing the levels of sodium, trans/saturated fatty acids, free sugars and total energy. The Romanian Ministry of Health took such an approach and invited the Romanian Food Industry Federation to enter into an agreement based on voluntary actions to reduce salt, saturated fats and free sugars. However, the agreement excludes food sector SMEs. No technical assistance programes have been set up to help food sector SMEs embark on such actions. An objective assessment of the status quo to aid the design of coherent policy interventions was the scope of our study. We employed a questionnaire-based method to gather data relating to various aspect of reformulation. The main topics of the questionnaire were: company profile, intended or employed reformulation actions, set targets of reformulation actions, barriers, and main consequences of employed reformulation actions, including impact on sales and revenue. Of the total number of respondents (70), 44% had less than 50 employees. Activity profiles varied extensively, with most companies manufacturing bakery products (47%), meat products (28%) and dairy products (17%). An important majority (64%) of the respondents had not considered reformulating their products. Of the companies that took on reformulation actions, 27% succeeded and 9% failed. Success was defined as the ability to keep/increase revenue. Consumer rejection of reformulated products was presented as the main reason for failure. Targeted nutrients were, in descending order: free sugars, salt, total fat, saturated and trans fatty acids. Most reformulation activities were based on voluntary actions, as Romania has no legal framework to regulate reformulation. Most respondents (41%) considered food reformulation actions to have neutral outcomes, 37% believed it to have positive ones. Lack of technical assistance and consumer reluctance due to price increase or sensory issues were specified as the main barriers to reformulation. Innovation support, technical assistance and heightened consumer awareness were indicated as factors that could aid reformulation actions within food sector SMEs.

Key messages

- Technical assistance and heightened consumer awareness are main factors aiding reformulation actions
- Success in food reformulation is still an ongoing task for Romania‘s SMEs

Oral anticoagulation surveillance through the Sentinel Network in the Region of Valencia, Spain 2014

Ana Boned-Ombuena

A Boned-Ombuena[2], A López-Maside[1], M Miralles-Espí[1], S Guardiola Vilarroig[1], J Pérez Panadés[1], D Adam Ruíz[2], O Zurriaga[1]
[1]Public Health General Directorate, Valencian Regional Health Administration, Valencia, Spain
[2]Health Department 7 of Valencia, Spain
Contact: anaboned@hotmail.com

Background

Oral anticoagulation therapy (OAT) is essential in the prevention and treatment of thromboembolic events, and it requires close monitoring. This study aimed to assess the prevalence of OAT among population aged ≥18 years in the Region of Valencia (4,060,575 inhabitants), Spain, and to evaluate the quality of management of OAT in primary care (PC).

Methods

Cross-sectional survey carried out through the Sentinel Network in 2014. The sample comprised 2,2% of population in our region. OAT patients were included by 59 PC physicians. Quality: International Normalised Ratio (INR) data was obtained through the PC electronic records. Time in INR therapeutic range ≥65% during the previous 6 months was assessed using Rosendaal method.

Results

Cases included 1,144 patients (50.3% men). Mean age was 74.5 years, significantly higher for women (76.3) than for men (72.7). Prevalence was 13.0 per 1,000 pop., and it significantly increased with age, reaching 68.7 among ≥80 year-olds. Among 60–79 year-olds, prevalence was significantly higher for men (37.5) than for women (26.6).

The most common indication was atrial fibrillation (AF) (81.3%). Some patients (22.9%) had ≥2 indications. OAT was mainly prescribed by cardiologists (72.6%). Most patients (97.8%) were on long-term OAT, and their mean duration of treatment at enrolment was 5.5 years. Most patients (92.2%) were on VKA, and 7.7% on new anticoagulants (NOAC).

Quality: INR data was absent or insufficient for 28,5% of patients. Follow-up of OAT with VKA was mainly performed in primary care (82.9%). Among these cases, an adequate anticoagulation control was achieved in 63.3%.

Conclusions

Prevalence of OAT is considerably high. It is expected to increase because AF, its main indication, is raising.

Quality of this service is comparable to that observed in other studies. However, it could be improved through the enhancement of the existing approach and access to information or, alternatively, new strategies –i.e. self-monitoring- or NOAC.

Key messages

- OAT prevalence is considerably high in our region (13.0 per 1,000 pop. aged ≥18 years), and it significantly increases with age. It is expected to increase because AF, its main indication, is raising
- An adequate anticoagulation control was achieved in 63.3% of patients on VKA monitored in PC. Quality of this service is comparable to that observed in other studies. However, it could be improved

A Forgotten Issue: Gender Point Of View At Research Related To Cancer Caregivers

Deniz Yuce

D Yuce[1], *B Kucuk Bicer*[2], *S Ozvaris*[2,3]
[1]Department of Preventive Oncology, Hacettepe University Institute of Oncology, Ankara, Turkey
[2]Public Health Department, Hacettepe University Institute of Public Health, Ankara, Turkey
[3]Public Health Department, Hacettepe University Faculty of Medicine, Ankara, Turkey
Contact: yuce.deniz@gmail.com

Background

Although elongated life period by developments in cancer treatment, psychosocial issues are missed. We wanted to identify the place of gender issue in studies at cancer caregivers in literature.

Methods

The review of the literature study was conducted in a PubMed using MeSH standards. The 'cancer, gender, caregivers' key words were scanned between 2008–2013. After scanning 102 articles were found; 20 were full abstracts and 82 of them were full texts. The reviewed literature was consist of 84 original research articles and 18 reviews. Data collecting sheet was formed to collect data. Descriptive statistics were used to summarize data.

Results

In the study, 83.1% of the publications included more than one cancer type, 5.6% included leukemia, and 2.8% included breast cancer. Caregiver gender was unknown at 63% and female at 27% of the articles. Patient gender was 80% unknown and male at 14% of the articles. 29 of the articles had gender point of view. 12 of the gender related articles had critical point of view. Topics like women's status and to improve women status (covenant) was only considered in 8 articles.

Conclusions

These results indicate that the need for further exploration of effective interventions to increase gender awareness for men and women in cancer patients. Gender is one of the public health issues that still preserves more interest especially in academy to form gender point of view in community.

Key messages

- Woman cancer caregiver support must be developed in order to close the gap related to gender inequality
- Innovative approaches are needed to enhance womens status

Management of dietary therapy for rare diseases in Veneto Region: appropriateness and sustainability

Monica Mazzucato

E Boscaro, S Barbieri, C Minichiello, M Mazzucato, A Vianello, P Facchin
Rare Diseases Coordinating Centre - University of Padua, Veneto Region, Italy
Contact: elisaboscar@gmail.com

Issue

In Italy, dietary therapy products (DTs), such as protein-free medical food and amino acids mixtures, are guaranteed by National Health Service (NHS) for people with rare inborn errors of metabolism (IEM), as they are life-saving products replacing essential nutrients for those people.

Problem

DTs' use raises a safety and appropriateness issue, as some DTs may contain excipients harmful to specific IEM patients, and a sustainability issue for NHS, as annual DTs' expenditure has been increasing steadily of 9% due to the rise in prices and in consumption. The process to get DTs involves many actors: expertise centres' clinicians, pharmacies, primary care services. To order IEM patients pathway, and that one of all people suffering from a rare disease, Veneto Region in 2002 has created a web-based information system (IS) supporting the activities of the patient-centered rare disease healthcare network. In IS, for each type of IEM, only selected DTs are reported and updated every three months. Clinicians prescribe type and dose of DTs specific for the patient through IS, which is viewed by pharmacies in real time, so that they can readily provide IEM to patients. Furthermore, IS collects data useful to monitor DTs prescriptive appropriateness and expenditure.

Results

In Veneto there are 635 IEM patients, 150 using DTs. 118 have a prescription of high cost DTs, as amino acids mixtures, and 82 patients use protein free medical food. Annual expenditure for DTs has been reduced by 2% instead of increasing of 9% as expected. Per capita cost of high cost DTs is 6.393€.

Lessons

Veneto Region has organized a monitored and equitable healthcare pathway for IEM patients. IS implementation allows overseeing DTs prescription, ensuring appropriate treatments and safety for patients while increasing sustainability thanks to cost avoidance.

Key messages

- Clinical and organizational appropriateness allows to achieve equitable and safe DTs' use and health care cost avoidance
- More and more informative systems allow monitoring healthcare pathway and saving resources with the aim of ensuring sustainability of the NHS

Measurement adherence to therapy by MPR (Medication Possession Ratio)

Marija Skes

M Leppée, M Skes
Department of Pharmacoepidemiology, Andrija Stampar Institute of Public Health, Zagreb, Croatia
Contact: marija.skes@stampar.hr

Background

The objective is to determine adherence to chronic disease medication measuring by MSR, and compares with adherence that has been based on the patient's self-report from our previous study, considering both studies in the same chain of pharmacies.

Methods

This retrospective administrative claims study used data on adult patients with multiple chronic disease treated with more than one medication on their first contact with the medication. We used pharmacy claims data for 142 patients in one Zagreb's public pharmacy to find out the rate of adherence to chronic disease medication.

Results

Initial MPR in the initial phase was good and in 132 patients (93.0%) was 80%≤MPR, which means that they were adherent to medication. Over time, that number has decreased (only 15.0% at fifth refill). For the duration of drug taking, adherence to therapy continuously falls and the number of patients with the same MPR condition reduced. After three refills 100% ≤MPR patients are reduced for one-third (35.3%). A number of the patients with initial MPR 90% ≤MPR<100% reduced for three-fourth (73.8%) and the patients with 80% ≤MPR<90% halved (for 54.5%).

Conclusions

The main problem of long-term therapy is significantly decreased of adherence to medication in a very short time. It is important to remember that almost all the interventions effective for improving patient adherence in long-term care were complex, including a combination of more convenient care, information, reminders, self-monitoring, manual telephone follow-up, reinforcement, counseling, family therapy, psychological therapy, crisis intervention, and supportive care.

Key messages

- significantly decreased of adherence to medication in a very short time
- all the interventions for improving patient adherence in long-term care are very complex

Cost of Illness of Multiple Sclerosis - A systematic review

Emilie Friberg

O Ernstsson, H Gyllensten, K Alexanderson, P Tinghög, E Friberg, A Norlund
Division of Insurance Medicine, Department of Clinical Neuroscience, Karolinska Institutet
Contact: emilie.friberg@ki.se

Background

Cost-of-illness (COI) studies of multiple sclerosis (MS) have become a vital component for describing societal costs of MS and are often used in model studies of interventions of MS. Our aim was to identify patterns in the methods used for estimating the COI of MS, compare estimates of costs, and examine cost drivers, through a systematic literature review.

Method

A literature search was performed in PubMed for the period January 1969 to January 2014, resulting in 1326 publications. Of those, 48 were assessed as relevant. A mapping of studies based on bottom-up approach (BU) or top-down (TD) approach was conducted. Also, cost estimates were compared between the 29 studies that presented number of patients included, time-period studied, and year of price level used, and furthermore used a societal perspective on costs and human capital approach for indirect costs.

Results

The mapping showed that BU studies were most common. The second analysis covered 17 countries and 59% of the studies were conducted by two Swedish research centers. Costs based on BU method calculations were, per patient, up to six times higher than the results from the one TD study identified. The main cost drivers were drugs in lower severity level, and production losses and informal care among people with more advanced MS.

Conclusion

Although there are problems with comparing absolute costs across studies, the relative costs comparing different severity levels showed higher resemblance. The main cost drivers were drugs for less severe MS and informal care and production losses for the most severe MS. Our findings add knowledge about patterns in methodology, identify requirements for future research, and can inform future economic models for MS costs and thus aid decision making.

Key message

- Cost increase and cost drivers vary with severity of MS and results regarding COI vary substantially if the study method is bottom up or top down

Risks of hospitalization and drug consumption associated with Coeliac Disease in a birth cohort study

Cristina Canova

C Canova[1], G Pitter[1], J Ludvigsson[2,3], P Romor[4], L Zanier[5], R Zanotti[1], L Simonato[1]
[1]Laboratory of Public Health and Population Studies, Department of Molecular Medicine, University of Padua, Padua, Italy
[2]Department of Medical Epidemiology and Biostatistics, Karolinska Institutet, 1717[7]Stockholm, Sweden
[3]Department of Pediatrics, Örebro university hospital, Örebro, 7018[5]Örebro, Sweden
[4]Friuli-Venezia Giulia Regional Health Information System, Informatica per il Sistema degli Enti Locali (INSIEL) S.p.A., Udine, Italy
[5]Epidemiological Service, Health Directorate, Friuli Venezia-Giulia Region, Udine, Italy
Contact: cristina.canova@unipd.it

Background

Celiac disease (CD) is associated to several comorbidities and impaired quality of life, but little is known about use of healthcare services and medication and its association with socio-economic factors. We used a population-based cohort design to estimate healthcare use in CD children and young adults compared to matched references, and its variation across maternal educational level.

Methods

All newborn in Friuli-Venezia Giulia Region (Italy) between 1989 and 2011 registered in the Medical Birth Register were included in the cohort. CD incident cases were identified through pathology reports, hospital discharges and copayment exemptions and matched with up to five references by sex, year of birth and maternal education. Cox regression models were used to estimate Hazard Ratios (HRs) for major causes of hospital admission and drug prescription occurred after diagnosis in CD patients compared to references, with stratification by time of first event and maternal education.

Results

We identified 1,294 CD cases and 5,681 references. CD cases were at increased risk of hospital admission for any cause (HR: 2.34; 95% CI 2.08-2.63) and for all major ICD9-CM categories except complications of pregnancy and puerperium, diseases of skin, muscoloskeletal tissue, and injuries and poisoning. A significant increase of prescriptions was also detected for all major drug categories except dermatologicals and genito-urinary medications. For most diseases and drug categories, the risk estimates were higher in the first year after CD diagnosis but remained significant also more than 5 years after diagnosis. The risks were similar across different groups identified by maternal education.

Conclusion

Diagnosed CD subjects were at increased risk of hospitalization and medication use compared to the general population, even ≥5 years after diagnosis, with no effect modification of maternal education. Greater healthcare consumption may be explained both by non-specific health complaints and by complications or associated conditions of CD.

Key messages

- Subjects with CD diagnosed during childhood or young ages were at increased risk of later hospitalization and medication use compared to the general population
- Risks of hospitalization and medication use in CD subjects persisted over time and were independent from socio-economic status at birth

Human Papillomavirus Immunization – Education programme in Province of Vojvodina, Serbia in 2014

Vladimir Petrovic

O Niciforovic Surkovic, V Petrovic, E Ac Nikolic, S Ukropina
Institute of Public Health of Vojvodina, Novi Sad, Serbia
Medical Faculty Novi Sad, University of Novi Sad, Serbia
Contact: vladimir.petrovic@izjzv.org.rs

Background

Cervical cancer is a significant public health problem in Autonomus Province of Vojvodina, Serbia. The 2010 WHO gudelines reccommend Human Papillomavirus immunization (HPVI) as a measure of primary prevention.

Objectives

Education of parents and health professionals (HP) and assessment of attitudes about recommended HPVI in order to introduce immunization program in Vojvodina. Educational activities were implemented in 2014. First, included education of HP from primary health care institutions in order to provide relevant information to the parents about recommended HPVI. Eight seminars were held and attended by 313 participants. Second activity included distribution of informative leaflet with questionnaire through schools to all parents of 11 years old girls in Vojvodina (n = 9477). It contained all relevant questions and answers about HPVI and questions in order to asses the attitude of parents towards recommended HPVI of their daughters. Parents were asked to return fulfilled questionnaire back.

Results

After the educational seminars for HP positive attitude towards HPVI was detected among 83% of HP, opposite to the 17% prior to the eduactional activities.

Response rate of surveyed parents was 52.7%. Positive, negative and undecided attitudes towards HPVI were detected in 29.1%, 42.9% and 28.0%, respectively.

Conclusions

Evaluation of HP's education showed signifficant improvement of their knowledge and positive attitude toward HPV immunization. Low rersponse rate and proportion of parents with positive attitude as well as their comments about need for aditional information, implied that method used in education was not sufficient.

Main messages

Relevant information should be directed to health professionals and parents in order to assure succesfull implementation of the preventive programme.

Greater effort and extension of a educational activities are needed for parents as a prerequisite of succesfull immunization programme.

Key message

- Extension of educational activities directed to HP and parents is needed as a prerequisite of succesfull HPV immunization programme

Screening of arterial hypertension and its economic evaluation in Kazakhstan

Aigul Shinbolatova

A Shinbolatova, M Kulzhanov
Population health and social science department, Kazakhstan School of Public Health, Almaty, Kazakhstan
Contact: aigulksph@gmail.com

Background

Screening of arterial hypertension (AH) and its economic evaluation is one of the important issues in Kazakhstan, even though it is covered by the ministry of health, effectiveness was not assessed. The present study examines clinical and cost-effectiveness analysis of screened and non-screened patients with defined AH.

Methods

A decision tree model was used in order to determine clinical effect and costs of screened and non-screened patients. Incremental cost effectiveness ratio (ICER) based on (1) screening cost and (2) costs of physician consultation, medications and one year surveillance were estimated. Calculation of cost saving in two groups based on clinical effects: among screened 12.7% were treated and discharged from clinical records and 79.1% of non-screened had complications that increase expenses over the long term.

Results

Incremental cost effectiveness ratio (ICER) based on expenses screened and non-screened were (29.2$). The annual per patient cost of screened and non-screened were 7.66$ and 56.1$ respectively. Among screened patients disease at an earlier stage 43.2%, in non-screened group disease detected in older ages and at the later stages 55,8% with 3rd stage of hypertension, which implies an increase the cost of treatment at patient and health systems level. Difference in cost associated with price of medications and stage of AH. Calculation of the cost saving on 15.3% likely to appear when medical effect of 16.7% among screened were achieved.

Conclusion

In case if screening followed with proper treatment, led to improvements in clinical results and cost reduction in one year up to 15.3%, while in the non-screened by only 6.2%. After two years, in the first group cost reduce up to 23.7%, while in the second group will increase the costs up to 0.3%

Key words: economic evaluation, arterial hypertension, screening.

Key message

- Screening of non-communicable diseases and its economic justification is one of the crucial issues in Kazakhstan, needs an evaluation of clinical and economic effectiveness, benefit in long run

Folate deficiency is associated with Cervical Intraepithelial Neoplasia: perspective for prevention

Martina Barchitta

M Barchitta[1], A Quattrocchi[1], A Maugeri[1], N La Rosa[2], A Scalisi[2], A Agodi[1]
[1]Department ''GF Ingrassia'', University of Catania, Italy
[2]UO di Screening Ginecologico, ASP Catania, Italy
Contact: martina.barchitta@unict.it

Background

A healthy diet, providing high folate levels, may reduce the risk of HPV infection and Cervical cancer (CC). The aim of the present study was to assess the effect of diet and of folate intake on HPV infection and Cervical Intraepithelial Neoplasia (CIN).

Methods

A total of 650 women were enrolled in a cross-sectional study and classified by histological diagnosis as cases (CIN1+) and controls and by HPV status. Adherence to Mediterranean Diet (MD), assessed by the Mediterranean Diet Score (MDS), and folate intake were calculated using a food frequency questionnaire. Folate deficiency was estimated taking into account supplements consumption.

Results

The mean MDS value was 4.2 (median 4; range 0–9): 6% of women were with high adherence to MD and the prevalence of inadequate folate intake was 65.4%. MD adherence were not different among cases and controls. Overall, the younger and the smokers showed an increased risk of HPV infection (OR:3.1, 95%CI: 2.1–4.6; OR: 2.1, 95%CI: 1.4–3.1, respectively) and of CIN (OR:2.3, 95%CI:1.5–3.4; OR:1.5, 95%CI: 1.0–2.2, respectively). Moreover, women with folate deficiency showed an increased risk of HPV infection (OR:1.5, 95%CI: 1.0–2.2). Regression analysis, adjusting for the main confounders, confirmed that the younger and the smokers showed an increased risk of HPV infection (OR:2.9, 95%CI:2.0–4.3; OR:1.8, 95%CI:1.2–2.8, respectively). Among the 233 HR-HPV positive women, in the younger and in the smokers, women with folate deficiency had an increased risk of CIN (OR:3.4, 95%CI:1.1–10.6; OR:3.5, 95%CI:1.2–10.1, respectively). Notably, regression analysis confirmed that folate deficiency was associated with an increased risk of CIN (OR:2.3, 95%CI: 1.1–5.0).

Conclusions

Findings of this study highlight that folate intake could prevent HPV infections and CIN, especially in younger and in smokers. This work was conducted with the research support of Bench Srl, University of Catania.

Key messages

- Folate deficiency was associated with an increased risk of CIN
- Adequate folate intake is an important approach for cervical cancer prevention

Requirements for breast cancer data collection: systematic review of European funded projects

Silvia Deandrea

L Neamtiu, J Lopez-Alcalde, S Deandrea, A Uluturk, Z Saz-Parkinson, D Lerda
European Commission, Joint Research Centre (JRC), Institute for Health and Consumer Protection (IHCP), Public Health Policy Support Unit, Ispra, Italy
Contact: luciana.neamtiu@ec.europa.eu

Breast cancer is a relevant health problem. The Joint Research Centre (JRC) coordinates the European Commission Initiative on Breast Cancer (ECIBC), aiming at facilitating the provision of evidence-based and person-centred breast cancer services in Europe. One of the objectives is to develop and pilot a European Quality Assurance (QA) scheme for breast cancer services (voluntary and based on evidence). Deep knowledge on existing breast cancer databases/data collections (BCD/BCC) and theirs standards/coding systems is essential and JRC is performing a study on this.

To gather this knowledge, we consulted the following sources: PubMed, National Cancer Plans, EU reports, EU funded projects. We performed a general web search, existing European QA schemes analysis. A survey is also planned. Among the searches, we present here only the results of a systematic review of projects funded by the EC between 1990 and 2014 was carried out consulting CORDIS and CHAFEA databases. Titles and abstracts were screened looking for 'potentially relevant' projects and, for those, full reports were assessed. Finally, we extracted the data from projects fulfilling our eligibility criteria using a previously piloted data extraction form.

We screened 3335 projects and defined 84 projects as 'potentially relevant'. From these we finally included 10 projects which provided standards/requirements for breast cancer data collection. These projects developed recommendations for 1) breast cancer screening related items, 2) breast cancer data set for cancer registries, 3) common standards for cancer survival studies.

No EU funded project proposed standards for the data collection of the whole path of breast cancer care. ECIBC will propose through the European QA scheme a minimum data set for breast cancer data. The other searches and the survey being conducted at JRC will complement the information and support the selection of data collection to be included in the QA scheme.

Key messages

- There is a need to propose the what and how (standards) for the data collection applicable to the whole path of breast cancer care. ECIBC will propose such a data set
- The ECIBC project is keen to measure its 'impact factor'. Without a close monitoring of outcomes, no benefit can be proven, hence, no justification for tax payers to continue supporting a project

Implementation of Next-Generation-Sequencing in Oncology and Heamatology: a Belgian feasibility study

Marc Van Den Bulcke

M Van den Bulcke[1], L San Miguel[2], R Salgado[6], E De Quecker[3], H De Schutter[4], A Waeytens[5], P Van Den Berghe[3], S Tejpar[3], J Van Houdt[3], S Van Laere[6], B Maes[7], F Hulstaert[2]
[1]Scientific Institute of Public Health, Belgium
[2]Belgian Health Care Knowledge Centre, Belgium
[3]Katholieke Universiteit Leuven, Leuven, Belgium
[4]Stichting Kankerregister, Belgium
[5]National Institute for Health and Disability Insurance, Belgium
[6]GasthuisZusters Antwerpen, Belgium
[7]Jessa Ziekenhuis - Hasselt, Belgium
Contact: marc.vandenbulcke@wiv-isp.be

Cancer pathogenicity is essentially driven by sets of mutations, allowing in some cases the use of targeted medicines.In comparison to non-selective forms of chemotherapy, cancer patients treated in a targeted way are more likely to respond avoiding unnecessary expensive and potentially toxic treatments. Many single marker test methods exist to profile mutations in tumors but 'next generation sequencing' (NGS) allows for the simultaneous detection of multiple alterations in so-called genepanel tests.

The focus of this feasibility study are NGS panels to test for somatic alterations in the tumor DNA of solid tumors and haematological malignancies. The aim is to list the current status on clinical utility of NGS gene panel tests in oncology and to define the requirements for introducing such tests in routine care. A second aim is to evaluate the importance of diagnostic test accuracy on patient benefits, harms and cost-effectiveness.

A combination of literature reviews and expert panel discussions facilitated the work here presented.

Our study shows 1°) NGS may represents a budget neutral alternative test method, 2°) the most important parameter of the NGS test in the targeted therapy context is the specificity of the test itself, 3°) due to the rapid evolution in this field, a Committee of independent experts should address the issue of somatic tumor mutations and their clinical utility, 4°) novel challenges in external quality assessment and standardization of accreditation are identified especially with the bioinformatics aspects, 4°) training of clinicians in NGS/molecular diagnostics is required, 5°) the pre-test counselling and informed consent in case of detection of both somatic and hereditary mutations using NGS genepanel tests has to be carefully addressed and finally 6°) a central registration of test results would be an asset which could facilitate future retrospective outcome evaluations.

Key messages

- NGS genepanels is a first promising step in a new paradigm in routine oncology
- We need broad education of the public, the professionals and the officials on genomics in the clinic

Patient, physician and pharmacist: Joint action to increase the adherence to medication

Marcel Leppée

M Lepée[1], *J Culig*[1], *Radman*[2], *K Mandic*[3]
[1]Pharmacoepidemiology, Andrija Stampar Institute of Public Health, Zagreb, Croatia
[2]School of Medicine, Zagreb, Croatia
[3]Department of Ophtalmology, University Hospital Rebro, Zagreb, Croatia
Contact: marcel.leppee@stampar.hr

Background

Medication adherence usually refers to whether patients take their medications as prescribed and whether they continue to take a prescribed medication. The impact of poor adherence grows as the burden of chronic disease grows worldwide. Adherence to long-term therapy for chronic illnesses in developed countries averages 50%.

Methods

The cross-sectional survey was conducted at 106 Zagreb, Croatia pharmacies and the questionnaire was filled out by the study subjects. We used a 33-item self-administered questionnaire that included a convenience sample of 635 individuals who were buying drugs for the treatment of chronic diseases. Study subjects were divided into two groups, with adherent defined as a ''yes'' response to the statement that they ''never fail to take their medication on time.''

Results

In our study population (n = 635), non-adherent subjects prevailed over adherent subjects (n = 370; 58.3% vs. n = 265; 41.7%). The most common diagnoses were diseases of the circulatory system (n = 500; 36.8%) and endocrine, nutritional and metabolic diseases (n = 285; 21.0%). The great majority of study subjects reported forgetfulness (''I just forgot'') as the main reason for skipping drug doses, followed by being away from home and shortage of the drug (having consumed it all). Comparison of reasons for medication noncompliance in the total study population versus subjects on antihypertensive therapy showed no statistically significant difference in any of the reasons (P = 0.895).

Conclusions

Nonadherence to medication is a growing concern to patients, physicians, healthcare systems, and other stakeholders because that it is prevalent and associated with adverse outcomes and higher costs of care. There is usually no single reason for medication nonadherence, and therefore must be a comprehensive approach to improve adherence. Research on adherence has typically focused on the barriers patients face in taking their medications. Common barriers to adherence are under the patient's control, so that attention to them is a necessary and important step in improving adherence.

Key messages

- Nonadherence to medication is a growing concern to the health care system
- Barriers to adherence are under the patient's control

Physician-patient relationship in improving adherence to medication

Maja Maric-Bajs

M Leppée[1], *J Culig*[1], *M Maric-Bajs*[1], *H Radasevic*[1], *I Radman*[2]
[1]Department of Pharmacoepidemiology, Andrija Stampar Institute of Public Health, Zagreb, Croatia
[2]School of Medicine, University of Zagreb, Zagreb, Croatia
Contact: maja.maric-bajs@stampar.hr

Background

Adherence is one of the important factors of patient behavior during treatment, and talks about the extent to which patient behavior coincides with the recommendations of physicians about taking the prescribed therapy, healthy living, or other acceptable behavior. The purpose is to explore the relationship between general practitioners (physicians) and patients with special emphasis on the comparison of adherent and non-adherent patients.

Methods

Relationship is investigated using a questionnaire where patients respond to a series of questions relating directly to this relation and, indirectly, the persistence of the treatment.

Results

The study included 635 persons, of whom there were 265 (41.7%) adherent, and 370 (58.3%) non-adherent. More than ¾ of respondents (75.3%) was treated for more than five years at their present general practitioner (physician), there were more adherent patients that were treated for more than five years (83.4%) than non-adherent ones (69.5%). The analysis of respondents' claims about their relation with physician shows that in the first place, with the highest number of positive responses, is the claim of the respondents that his/her physician always explains the results of laboratory tests, X-rays and other specialized findings (n = 489, 77.0%). In the second place is the claim that a patient can consult his/her physician whenever he/she has some personal or emotional problem (n = 467, 73.5%). In the third place, the claim that a physician monitors the patient's problem solving (either directly or by telephone) with 71.0% (n = 451), whereby the adherent patients did not differ from non-adherent in accepting these claims (72.5%:70.0%).

Conclusions

Adherence is affected by several factors that are common among people with chronic diseases, mostly older, such as physical or mental impairments, the use of more drugs, and an increased risk of drug-drug interactions and side effects. Physician may be able to simplify the drug regimen by using one drug that serves two purposes or by reducing the number of times a drug must be taken, to improve adherence and to reduce the risk of interactions.

Key messages

- Adherence is affected by several factors
- Physicians may be able to simplify the drug regimen

Y.M. Poster Displays: Mental health and social security

Genotoxic effects in nurses occupationally exposed to antineoplastic drugs: meta-analysis of data

Vincenza Gianfredi

V Gianfredi[1], *S Levorato*[2], *M Villarini*[2], *M Moretti*[2]
[1]School of Specialization in Hygiene and Preventive Medicine, Department of Experimental Medicine, University of Perugia, Perugia, Italy
[2]Department of Pharmaceutical Sciences, Unit of Public Health, University of Perugia, Perugia, Italy
Contact: vincenza.gianfredi@studenti.unipg.it

Antineoplastic drugs (AD) are a group of chemicals known to be mutagenic/carcinogenic. Concern has raised about possible genotoxic hazards for healthcare personnel handling these drugs, as occupational exposure to AD is still frequent in hospital settings despite significant safety policy improvements. Biomonitoring of genotoxic hazards has been reported in several studies, mainly by the use of cytogenetic assays, such as analysis of chromosome aberrations (CA) or micronuclei (MN) in peripheral blood lymphocytes. We have performed a systematic review of molecular epidemiology studies of occupational exposure to AD in the attempt to discover whether a general trend could be evinced on this topic.

A structured computer search on PubMed was performed for molecular epidemiological studies reporting results of primary researches with cross-sectional evaluation of MN in personnel occupationally exposed to AD. Selected studies had to report average (± SD or SEM) group data for frequency of structural/numerical chromosome aberrations and/or micronuclei.

The systematic review identified 28 studies. As a measure of effect we calculated the ratio of means (RoM), defined as the mean value in the exposed group divided by the mean value in the control group, useful to compare studies with outcomes expressed in different units (e.g., %, etc.). To perform the meta-analysis we used the software Review Manager (RevMan 5.1) by The Cochrane Collaboration. The majority of the studies had shown a high level of MN in healthcare personnel exposed to AD, compared to unexposed subjects, RoM = 5,02 [4,99-5,04]. The asymmetry in the lower part of the Funnel plot is due to small sample size of the studies in literature.

In according to the prognostic value of MN, the studied population appears to be much more at risk to develop cancer than unexposed nurses. This finding clearly indicates the necessity to improve some steps in the administration process of AD to appropriately cope with genotoxic risk.

Key messages

- Healthcare personnel handling AD is exposed to a high genotoxic risk
- Guidelines for handling AD, as well as safety recommendation, should be issued

Supporting tools for companies addressed to integrate gender perspective in health at work

Elisa Caponi

E Caponi[1], G Ficini[2], A Taglioli[3], F Fontana[3], R Foddis[2], R Biancheri[3], C Breschi[4], E Vanni[4], A Ninci[4], A Carducci[1]
[1]Department of Biology, University of Pisa, 13 Via S.Zeno 35–39, 56126 Pisa, Italy
[2]Department of Translational Research, N.T.M.S., University of Pisa, 2 Via Paradisa, 56127 Pisa, Italy
[3]Department of Sociology, University of Pisa, 3 Via Serafini, 56126 Pisa, Italy
[4]Italian Workers' Compensation Authority, INAIL, 7 Via M. Bufalini 7, 50122 Firenze, Italy
Contact: elisa.caponi@for.unipi.it

Issue/problem

In recent European Policy concerning health and safety at work, gender, together with age, geographical origin and contractual condition, become an important aspect to be considered in order to ensure for all workers a well-being at work, which must be jointly targeted by all of those involved. In particular, the gender perspective should imply to consider not only biological differences between male and female workers, but also the social role they really play in the current society.

Description of the problem

The University of Pisa, through Italian Workers' Compensation Authority (INAIL), has carried out a scientific research with the aim of giving prevention tools in the ''gender based risk assessment'' field. The methodology was based on a multidisciplinary approach (study group composed of occupational hygienists, occupational physicians and sociologists) with the common goal of supporting employers and the companies in assessing occupational risks in a gender perspective.

Results

The research path has allowed us to develop processes and tools, easy to use and useful for assessing the degree of integration of gender in the risk management and prepare the document for risk assessment accordingly. To facilitate the drafting, a tool for self-evaluation of the risk assessment document in a gender perspective was designed and some maps of the area and risk fact sheets that summarize the current scientific knowledge in relation to gender were produced. These tools are being evaluated in a voluntary trial and then they will be available on the website for INAIL companies.

Lessons

The risk assessment must take into account all the factors, both bio-physiological and cultural, that can interact with certain agents or hazardous conditions and with risk perception itself. Only by considering all these aspects in a multidimensional way it will be possible to take preventive measures and appropriate protection for risk management in a gender perspective.

Key message

- For the health and safety of all workers it's important to assess the occupational risks according to a gender approach, taking into account all the peculiarities that characterize both men and women

Combination types of violence: evidence from Serbian Primary Health Care centres

Zorica Terzic Supic

Z Terzic-Supic[1], M Fisekovic[2], M Santric–Milicevic[1], G Trajkovic[3]
[1]Institute of Social Medicine, Belgrade University, Faculty of Medicine, Belgrade Serbia
[2]Primary Health Center New Belgrade, Belgrade Serbia
[3]Institute for Medical Statistics and Informatics, Belgrade University, Faculty of Medicine, Belgrade Serbia
Contact: zoricaterzic37@gmail.com

Background

Violence in the workplace is a serious social and public health problem in developing and transition countries. The objective of this study was to examine the prevalence and predictors of combination types of workplace violence and measures to ensure safe work environment for employees in Primary Health Care (PHC) centres.

Methods

This study was designed as a cross-sectional study and conducted between October 2012 and July 2013 at PHC centres in Belgrade, Serbia. The sample was formed by multi-stage sampling. Out of all sixteen PHC centres in Belgrade, five of them were randomly selected. The final analysis included only employees who confirmed the presence of any type of violence, 803 employees, (122 men – 15.2% and 680 women – 84.7%). The general response rate was 86.8% (1526/1757). The data were collected by questionnaire Workplace Violence in the Health Sector Country Case Studies Research instruments developed by ILO/ICN/WHO/PSI.

Results

The exposure to combination type of violence was 388 (48.3%). One-third of respondents 294 (36.6%) experienced two types of violence, commonly to verbal violence and mobbing. The multivariable - adjusted model showed that working between 18.00 – 7.00 h (95% CI = 1.06-2.15), being witness of incidents of workplace violence (95% CI = 2.02-4.09), changed shifts or rotas (95% CI = 2.40-8.39), and reduced periods of working alone (95% CI = 1.45-34.42) were significant predictors of combined type of workplace violence. There was an inverse association of combined type of workplace violence with being moved from another place to the place where currently work (95% CI = 0.48−0.98), being encouraged to report workplace violence (95% CI = 0.49−0.94) and the number of staff in the same work setting (95% CI = 0.28−0.66)

Conclusion

Collecting data on workplace violence and identifying specific risk factors could have a positive impact on strengthening security measures and control strategies for workplace violence.

Key messages

- Workplace violence is highly prevalent among the employees and almost half of them reported combination type of violence
- The existing protection measures in the workplace are not enough, it is necessary to provide a better work organisation

- and to encourage the reporting of violence by application of written procedures

Occupational medical examination and eye health prevention among Bulgarian metallurgy workers

Dessislava Stateva

M Stoynovska[1]*, D Stateva*[2]*, R Toncheva*[3]
[1]Dep. of Hygiene, environment, occupational diseases, Medical University-Pleven, Bulgaria
[2]Dep. of Ophthalmology, ENT, maxillo-facial surgery, Medical University-Pleven, Bulgaria
[3]Clinic of Occupational diseases, Sofia, Bulgaria
Contact: dessy_veleva@yahoo.com

Issue

Occupational medical examination (OME) in Bulgaria lately becomes very important both from social and economic point of view.

Optical radiation is strong hazard for metallurgist vision. The visible and infrared radiation (IR)-A range 0.76-1.4 µm enters the retina and causes retinopathy. Anterior eye segment absorbs IR range 1.4 µm-1 mm and results IR cataract. UV rays and IR with longer wavelengths cause photochemical cataract. OME was performed on 183 metallurgy workers and included visual acuity examination, biomicroscopy and ophthalmoscopy.

Results

During OME of the 183 workers with exposition to IR we found pathological cataract in 3 cases (1.6 %). There was artiphakia in 5 cases (2.7 %) with no data if the operated cataract was pathological. In 16 cases (8.7 %) there was retinal angiosclerosis. Hypertensive retinopathy was found in 63 cases (34.4 %) but it is unclear whether hypertonia was caused by the working environment hazards. Other pathological conditions that we found included refractive errors, glaucoma and eye injuries.

Lessons

Diagnostics of visual disorders in occupational medicine must be a part of the company OME system. Quality-controlled and regular OME improve safety and health of metallurgy workers.

Key message

- The evaluation of individual occupational risk is of utmost importance for metallurgy workers and is closely related to timely diagnosis and proper treatment of work related eye disorders

Trend and ratio of prescription of antidepressants and anxiolytics in Slovenia from 2009 to 2013

Tatja Kostnapfel

M Jelenc, T Kostnapfel, B Lovrecic, A Korosec, M Lovrecic
National Intitute of Public Health Ljubljana, Slovenia
Contact: tatja.kostnapfel@nijz.si

Issue

Depression represents one of the most widespread illnesses. During economic crises the burden of depression and anxiety disorder usually increases and requests treatment. The ratio between antidepressants (AD-N06A) and anxiolytics (ANX-N05B) indicate the quality of psychopharmaceutical treatment. AD as therapy should prevail.

The objective of the study was to investigate the prescription of ANX and AD in Slovenia. A retrospective observational analysis of AD and ANX prescriptions in the period 2009–2013 was performed with regard to age, gender and statistical regions of residence of the patient population. Drugs included in the study were classified according to WHO Anatomical-Therapeutic-Chemical (ATC) drug classification system, and ATC data were used to calculate defined daily doses (DDD) per 1,000 population per day. The data were obtained from the national Database of prescriptions for outpatients.

Results

In Slovenian during period 2009–2013 were prescribed 1,516 prescriptions/1000 inhabitants. There were prescribed 12 million DDD (17.17 DID) of ANX and also 40 million DDD (53.3 DID) of AD. There was a statistically significant decrease of prescriptions of ANX for 12% (24.59 to 21.35 DID) and a statistically significant increase of prescriptions of AD for 21% (43.95 to 53.30 DID) in the years 2009–2013.

There are big variations in prescribing among different Slovenian regions, partially due to different access to practitioner and psychiatric treatment, while in the northeast region there is also impact of high social deprivation.

Lessons

Consumption of AD in Slovenia is expanding. Prescription of AD and ANX enlights indirect insight in the health situation of population. Increase of AD and reduction in prescription of ANX indicate improvement in psychopharmaceutical treatment (clinical guidelines, education of physicians) in Slovenia, however results still indicate inequality in such treatment between regions.

Key messages

- Consumption of AD in Slovenia is expanding
- The ratio between AD and ANX prescribed indicates the improved quality of psychopharmaceutical treatment for depression and anxiety disorders

NGOs as a complement to youth mental health services aimed at young females in Sweden

Madelene Larsson

M Larsson, C Pettersson, TS koog, C Eriksson
Faculty of Medicine and Health, School of Health and Medical Sciences, SE-70182 Örebro, Sweden
Contact: madelene.larsson@oru.se

Background

During adolescence, mental health problems, including anxiety and loneliness, among girls increase drastically. The perceived problems among this group do not match the inclusion criteria for mental health services and barriers to access occur. In Sweden, both the government and the voluntary sector provide services to youth. The Girl Zone (Tjejzonen) is a Swedish NGO, which targets young females. Its goal is to prevent mental health problems and to strengthen girls' self-esteem, confidence, and trust by offering a female mentoring program. How can a NGO constitute a complement to the mental health services for young girls with mental health problems?

Methods

In a qualitative, ecologically sensitive study young females aged 15 to 26 (n = 5), women mentors (n = 12) and organization managers (n = 3) were interviewed and national supervisory reports on youth health services were included in inductive qualitative content analyses.

Results

The analyzes show a variety of differences between the youth mental health services and the Girls Zone. Added value of the NGO is the availability, including support without inclusion criteria and a great potential to act based on young females conditions, needs and preferences including a possibility to establish a relationship with a female mentor without demand and hierarchy.

Conclusion

NGOs can act as important complements to the youth mental health service. A salutogenic perspective on young female's mental health based on the Convention of Rights of the Children can empower young girls and reduce barriers for access to youth mental health service for those with severe mental health problems.

Key messages

- NGOs are important actors in the prevention of mental health problems among young females

- NGOs can meet the needs and preferences of the target groups and facilitate empowering processes in preventing mental health problems among young females

Long term evaluation study on child and adolescent psychiatry

Roman Winkler

R Winkler[1], *C Fritz*[2], *L Thun-Hohenstein*[2]
[1]Ludwig Boltzmann Institute for HTA, Vienna, Austria
[2]Univ. Department for Child and Adolescent Psychiatry, Christian-Doppler-Hospital, Salzburg, Austria
Contact: roman.winkler@hta.lbg.ac.at

Background

There is a particular public health research area that has been widely underrepresented concerning the evaluation of treatment courses – Child and adolescent psychiatry.

Methods

Validated surveys for the collection of clinical treatment success, patients' satisfaction and life quality were identified in a systematic review. The study design included a primary data collection (from 11/2011–01/2014) at a Department of Child and Adolescent Psychiatry. Patients, primary caregivers and the health professionals were interviewed at 4 time points (T1: admission, T2: discharge, T3: 6 weeks after discharge and T4: catamnesis 18 months after discharge).

Results

Clinical data was gained for a total of 229 patients. Regarding the distribution of diagnoses (block F in the ICD-10), most diagnoses could be found within block F 4 and F 9 (neurotic resp. behavioral disorders) (37 % resp. 26 % of the patients). Clinical symptoms significantly improved at discharge (51 % of the patients) and at T3 (44% of the patients). However, the greatest effects were detected throughout treatment success, satisfaction and life quality between hospital admission and patients' discharge. There is a flattening down of different outcomes (e.g. patients' life quality) between T2 and T3.

Conclusions

The realization of an evaluation is accompanied by complex organizational aspects challenging all involved actors. In this context, both, the use of reliable and valid instruments as well as high motivation levels of all evaluation participants are required to perform valuable evaluations. Since this study represents a national exception in this public health field, results shall inform clinicians and policy makers about long term outcome results and support treatment planning processes.

Key message

- Against the backdrop of underfunded child and adolescent psychiatric services, this study shows the effect of professional treatments and reflects the assessments of ALL involved key actors

Safety culture and teamwork to improve patient safety in mental healthcare in Austria

Andrea Schweiger

A Schweiger[1], *G Offermanns*[1,2]
[1]University of Klagenfurt, Austria
[2]Karl Landsteiner Institute for Hospital Management, Vienna, Austria
Contact: a3schwei@edu.aau.at

Background

The purpose of this study is to investigate the need for a safety culture in health care organizations, to enhance patient safety through effective teamwork in mental healthcare. Although there is much information about adverse events and teamwork in surgical units, there is a lack of awareness about safety issues in non-surgical units, especially in neurological and psychiatric settings.

Methods

The survey was conducted in two selected neurological and psychiatric units in an Austrian hospital. To assess the safety culture within the units, we combined the German version of the Hospital Survey on Patient Safety Culture and the German version of the Safety Attitudes Questionnaire. 153 staff members received the questionnaire, with a response of 54 (35%). Descriptive statistics was used for assessing safety culture (comparison of mean scores of the dimensions) between and within units. Spearman correlation was applied to determine a link between safety culture, teamwork and patient safety.

Results

Findings suggest a mainly positive safety culture throughout the sample and a positive correlation between effective team structures and patient safety. It should be noted that solely effective teamwork (communication openness, non-punitive response to error, feedback and communication to error) is associated with patient safety whereas just working in teams or unspecific communication cannot be linked with patient safety.

Conclusion

Limitations considered in the study are the small, not randomized sample and, due to the lacking validation, the used questionnaire should not be compared with other studies yet. We also require the need for more qualitative research (observation, interviews) to enhance the information about effective teamwork and the link to patient safety.

Key messages

- This study contributes to a deeper understanding of safety culture, teamwork and patient safety and raises awareness of further research in the uniqueness of the neurological and psychiatric setting
- The study induces a change in safety behaviour and leads to more transparency concerning effective teamwork structures and adverse events in mental healthcare

Workplace violence against women in catering sector: the qualitative study in Lithuania

Ieva Radzevičiūtė

I Radzevičiūtė, *J Stanislavovienė*, *M Veniūtė*
Institute of Public Health, Faculty of Medicine, Vilnius University, Vilnius, Lithuania
Contact: ieva.radzeviciute@yahoo.com

Background

Violence against women is the most widespread and tolerated human rights violation. The World Health Organization emphasize the importance of scientific research on violence against women in order to reduce the extent of the problem and improve the support for the victims. One of the main areas of activities of women in Lithuania is accommodation and catering, nevertheless, there is very little information on violence against female employees in this sector.

Method

The qualitative study was conducted to gain a rich understanding on violence against female employees in catering sector as well as needs for help and support. Female respondents were chosen using the "snowball" method. Individual semi-structured interviews were conducted with 4 female employees - violence victims. The interviews were recorded and transcribed. The qualitative content analysis method was used to interpret the data. Before the study each respondent gave verbal agreement to participate; the respondents were guaranteed the anonymity and confidentiality of the data obtained.

Results

This qualitative study was conducted on catering sector female employees, who experienced psychological violence and sexual harassment in their workplace. The results of the study have shown that employees who were abused in their workplace feel fear and guilt; they understand this abuse as their own problem, therefore tend to react to violence in a passive way (take no action) or react using violence as well. The abused employees expect help from their manager and not from their colleagues. Nevertheless, to address for help and receive it is quite difficult due to the overall predominant approach to violence at work, the behavior of managers and colleagues with the abused employee and the attitude of the abused herself to the necessity of the assistance at all.

Conclusions

The first qualitative study in Lithuania conducted in catering sector has shown that the abused female employees tend to connect their necessity for help with the company manager. The main factors preventing the violence victims from reporting about the abuse and receiving the adequate assistance in the workplace are such as the predominant approach to violence, the behavior of managers and colleagues with the abused and the attitude of the abused towards the behavior of their managers and colleagues.

Key messages

- The qualitative study has revealed the problem of violence in workplace and the necessity for assistance to the employees abused
- To reduce the level of violence in workplace it is important to shape the adequate attitude to the problem within the society and change the approach to violence itself

Health / a struggle to maintain a dignified life for smokers with schizophreina

Elisabet Sundgren

E Sundgren[1,2]*, J Hallqvist*[1]*, L Fredriksson*[2]

[1]Uppsala University, Disciplinary Domain of Medicine and Pharmacy, Faculty of Medicine, Department of Public Health and Caring Sciences, Family Medicine and Preventive Medicine, Uppsala Sweden

[2]Centre for Research and Development, Uppsala University and Region Gävleborg. Gävle, Sweden

Contact: elisabet.sundgren@pubcare.uu.se

Background

The comorbidity for diseases like metabolic syndrome, cancer and diabetes are high among people with schizophrenia compared with the general population, and their prevalence of smoking are high — between 54–70%. People with schizophrenia are well-informed of the negative impact smoking have on their physical health, but they find it difficult to stop smoking as it reduce anxiety and stress. The aim of this study was to investigate the health and lifestyle habits of smokers with schizophrenia and describe their experience of smoking in relation to health.

Method

Ten smokers with schizophrenia were interviewed. The interviews was conducted in Sweden from May to October 2013. The interviews was audiotaped and then transcribed verbatim, a hermeneutic phenomenological approach was used to describe, and interpret respondents' experiences.

Result

To accept the mental illness, have strategies to gain control over psychotic symptoms and engage in activities are three experiences, the respondents described as good health. Lifestyle habits are described as a structures in the daily life: arising in the morning, taking a cigarette, reading the newspaper, eating breakfast and doing the things planned for the day. The willingness to stop smoking are high among the respondents, but they fear that the cigarette withdrawal symptoms will increase their psychotic symptoms. Therefore they find it difficult to motivate themselves to stop smoking.

Conclusion

To be successful in smoking cessation program health care provider must understand the unique personal experience of health and lifestyle habits that people with schizophrenia experience. Health care provider must include a recognition of the fear that people with schizophrenia experience of losing control over their psychotic symptoms, and suggest other activities to replace the cigarette smoking.

Key messages

- Smokers with schizophrenia describe health as a struggle to maintain a dignified life and not losing control over psychotic symptoms
- In smoking cessation health care providers must pay attention to the fear people with schizophrenia have, and support them to find other activities instead of the cigarettes

Mental health self-esteems of migrants during focus group discussions in Hungarian reception centres

Zoltan Katz

Z Katz, E Marek, I Szilard

University of Pécs Medical School Chair of Migration Health (UP-MS), Pécs, Hungary

Contact: zoltan.katz@aok.pte.hu

Background

past years the number of irregular migrants crossing the Hungarian Eastern – South Eastern Schengen borders increased dramatically, in January 2015 was as high as about 20 000. This is seriously challenging the Hungarian migrant reception system. Since 2007 the UP-MS has been performing regular visits alongside the borderline and in the migrant reception centres (MRCs), checking the health, public health, occupational health conditions and the health assistance of migrants.

Objective

With the use of focus group discussions (FGDs) we aimed to learn more how migrants are aware about their rights to and opinion about the health assistance in MRCs, and their self-esteems about their mental health, need for mental health assistance.

Method

In 2014 – 2015 we have organized 7 FGDs in Hungarian MRCs. The number of participants of the sessions was from 7 to 10 persons, with mixed groups of migrants regarding their country of origin, mainly from remote geographical regions. The 60 minutes long voice recorded sessions were going on in English, in case of need with interpreters' assistance.

Results

participants were cooperative, ready to speak about their background and experiences while in the MRCs. They were ready to collaborate with the health service. Their opinions seemed highly motivated by their migratory experiences. Those with traumatic events as push factors were more satisfied with the conditions in Hungary. The majority of them have complained about mental health problems (more details in the presentation), expressing their need for psychological consultations. Currently only an NGO is providing regularly psychotherapeutic service.

Conclusion

FGD method seems a good tool for discovering the migrants' opinion about their conditions, highlighting their self-esteem on their own health and mental health problems and needs. These reports could be well used as feedbacks to the authorities in charge of setting up the health/ mental health services in the MRCs.

Key messages

- Focus group discussion is a proven tool for the assessment of special health needs of communities like irregular migrants living in reception centres
- Results of our focus group sessions highlight the real need of mental health assistance in migrant reception centres. Health care services should cover this aspects as well

Community Intervention Group – a 4 year inter-professional practice in a local health authority

Hugo Monteiro

H Monteiro, MM Santiago, RS Machado, S Barbosa, Ivo Cruz, D Antunes

Public Health Unit, ACeS Porto Ocidental, Oporto, Portugal

Contact: hugo.filipe.b.monteiro@gmail.com

Evidence suggests that psychiatric and mental health disorders are the main cause of disability and one of the major causes of morbidity in modern society. Introducing mental health in the public health agenda and ensuring that all citizens have access to quality mental health services have become urgent goals.

In 2010, the Community Intervention Group (CIG) was created. This group consists of public health professionals, psychiatrists (community mental health department and psychogeriatric department of Magalhães Lemos Hospital, Oporto), social service professionals, community health nurses and local non-governmental organizations. This group responds to critical situations signalized to the public health medical authority, through complaints concerning people that live in poor sanitary conditions and requests for compulsory detention, particularly in the fields of mental, social and public health.

From 2011 to 2014 there was an increase in the number of reported cases (101 cases in 2014). The majority of problems identified were related to mental health and most of the secondary problems reported were poor housing and sanitary conditions, violent behaviour and social isolation of elder population. The institutions which reported more cases were the local Police forces. From 2012 to 2014 the number of days of follow-up till the case conclusion was reduced by 12%. More than 85% of the cases were concluded. The majority of reported cases were quicker and adequately taken to needed care facilities or reintegrated in society under technical supervision. It is expected that the number of reported cases will increase in the following years due to the community recognition of the team.

From the practical experience of this group in the last 4 years, the intervention of a multi-professional team is essential. This experience improved coordination between health units and public and social organizations, increased the efficiency of procedures and optimized resources.

Key message

- The CIG works to increase coordination of health and social resources in the community; refer cases of psychiatric disorders to mental health services; and promote social reintegration of individuals

Framework for a Study of Policy Changes Needed to Support Older People with Chronic Conditions

Debbie Keeling

DI Keeling[1], *M Rigby*[2]
[1]School of Business and Economics, Loughborough University, Loughborough, UK
[2]Dublin City University, Dublin, Ireland
Contact: d.i.keeling@lboro.ac.uk

Issue

Across Europe the age and morbidity of the population is changing, with more persons surviving into older age with multiple chronic diseases and effects of ageing, but finance and workforce size remain constrained. Health and social care remain largely fragmented, yet increasingly citizens expect an integrated service.

Problem

Most efforts to address this problem focus on single issues, such as remote monitoring of single diseases, collaborative working methods, or coordination between health and social care. These often take place in an artificial world of pilots. What is needed is integrated study of all aspects, starting with actual presenting need, preparing the ground for paradigm shifts in practices which were relevant a century ago but not now.

Results

A large-scale integrated European study has been designed and submitted (decision Sept 2015). The approach taken is:

- Study in four sites of real needs of older people with chronic comorbidity
- Study of carers' needs, and linkage with patient needs
- Personal Care Ecosystem mapped
- Individual Virtual Care Team supported by controlled information sharing
- Design of new integrated services for health-related support
- New business models and financial flows
- New mobile computing to support patients and carers
- Critical review of ethical underpinning of current, and new, approaches
- Review of skill and competency clusters and occupational groups
- Assuring effective informal carer without impeding altruism
- Study of how to obtain societal support and effect policy change.

Lessons

Piecemeal consideration of issues will only have marginal effect, and move problems into new corners. Pilot studies and local innovations have value, but are artificial and may not endure. Comprehensive study is necessary, with a range of research skills and approaches, and of stakeholders. This presentation will introduce the study (if funded), or seek consensus on how to move forward on a major public health policy issue (if not).

Key messages

- Policy change to enable integrated care needs study of multiple strands including patients' preferences, carers' needs, new controlled information sharing, new use of ICTs, and new governance
- Such policy study needs to start with actual personal needs for health support combining chronic disease, ageing process, and social isolation, matched to societal acceptance of new conceptsMental health and social security

Effectiveness of acupuncture in different indications: an overview of Cochrane Systematic Reviews

Brigitte Piso

B Piso, I Reinsperger, J Breuer
Ludwig Boltzmann Institute for Health Technology Assessment, Vienna, Austria
Contact: brigitte.piso@hta.lbg.ac.at

Background

Acupuncture is a traditional Chinese medicine therapy method that is widely used for the prevention or treatment of diseases. Our aim was to provide social insurance funds with an overview on the effectiveness of acupuncture in different indications as decision-aid for prospective reimbursement decisions.

Methods

In May 2014, we conducted a systematic literature search in the Cochrane Database of Systematic Reviews that yielded 132 hits. Two authors independently screened 68 full-text articles for fulfillment of the inclusion criteria. Cochrane Reviews comparing needle, laser or electro-acupuncture with no/sham-acupuncture or other interventions were included. Cochrane Reviews were excluded, if acupuncture was only used as comparator. We extracted review details (e.g., number of included studies and patients) and finally, authors' conclusions as 'primary endpoint'.

Results

We included 55 Cochrane Reviews. Authors of 9 Cochrane reviews found evidence that acupuncture, mostly for indications that aimed at pain reduction, was more effective than the control intervention to a certain extent (at least for some major endpoints and comparisons). For 4 indications authors concluded that acupuncture seemed to be ineffective (e.g., for epilepsy or irritable bowel syndrome). In the remaining majority of reviews no firm conclusions on the effectiveness of acupuncture could be drawn due to missing or inconclusive evidence (42 indications).

Conclusions

Acupuncture could be a promising intervention targeting at chronic pain, a considerable public health concern of our ageing population (e.g., neck or low back pain, peripheral joint osteoarthritis). However, despite the wide use of acupuncture, evidence of effectiveness is still lacking for the majority of potential indications. Payers of health services should therefore aim at closing this evidence gap by supporting randomised controlled trials of high methodological quality and with sufficient sample sizes.

Key messages

- Acupuncture could be indicated to prevent or treat diseases of high public health relevance. But evidence is still missing or inconclusive for the majority of potential indications
- Well-designed randomised controlled trials seem essential to verify an evidence-based use of acupuncture

Best workplace health promotion practices towards older people within the EU PROHEALTH 65+ project

Umberto Moscato

U Moscato[1], *A Poscia*[1], *DI La Milia*[1], *A Collamati*[2], *W Ricciardi*[1], *S Golinowska*[3], *N Magnavita*[1]
[1]Department of Public Health, Università Cattolica del Sacro Cuore, Roma, Italy
[2]Department of Internal Medicine and Gerontology, Università Cattolica del Sacro Cuore, Roma, Italy
[3]Institute for Public Health, Jagiellonian University, Krakow, Poland
Contact: umoscato@rm.unicatt.it

Europeans are living longer than ever before and longevity launched new challenges in Public Health. Integrated active ageing policies should include a comprehensive age management of workforce that could promote productivity, workability and quality of life of older worker. This work presents the development and validation process of a template to investigate best workplace health promotion practices towards older people in Europe.

This research is a part of the study "Pro-Health 65+. Health promotion and prevention of risk - action for seniors" funded by the EU-CHAFEA. A comprehensive literature review of health promotion practices and programs for older workers was conducted between December 2014 and March 2015 through google and medline using as key words Ageing, Worker, Health Promotion. The results were used to create a template that in the following months will be validated by the PRO-Health65+ advisory board and will be sent to the top 1000 major companies, selected from several international ranking classification, to analyze their health promotion and prevention strategies targeted at the older worker (Results are expected for September 2015).

At the end of the literature review, seventeen milestones were selected and were uded to create a 10 multiple choice template. Main areas investigate are: setting, implementation period, financing body and related costs, provider, target and outcomes. Outcomes were classified in: work climate and employability of older worker; better and flexible work life; intervention for Health Promotion, prevention of work related and occupational disease, rehabilitation of long term sick/managing of worker with chronic diseases.

New policies are needed to achieve the change in culture necessary to encourage and enable people to work longer. Improved older worker integration and enhanced employment outcomes among older workers will be key means through which economies can adjust to the pressures of population ageing.

Key message

- Renewed workplaces, improved work organization and management styles, increased awareness and justice at work are prerequisites for health promotion for aged workers

Self-employed cancer survivors struggle with returning to work

Steffen Torp

S Torp, J Syse
Buskerud and Vestfold University College, Borre, Norway
Contact: steffen.torp@hbv.no

Background

Studies on cancer survivors' (CS) return to work (RTW) after cancer have mostly been performed among employees. RTW among self-employed CS have almost not been focused although there are big differences in these two groups' working conditions. The aim of this study was therefore to investigate whether there are differences in RTW and other factors relevant for RTW among self-employed workers and employees after having been diagnosed with cancer.

Methods

A total of 1343 working age CS of the ten most common invasive types of cancer for men and women in Norway completed a mailed questionnaire 15–39 months after being diagnosed with cancer. Included in the analyses were all participants who worked at time of diagnosis (N = 1115). A total of 88 CS (8%) reported that they were self-employed when diagnosed with cancer. We compared self-employed workers and employees by use of chi2 tests. Level of significance was set at 0.05.

Results

A total of 22% of the self-employed CS reported that they had not returned to work at time of survey while 15% of the employees had not ($p = 0.09$). While 9% of the self-employed CS had received disability or early retirement pension, only 5% had received such pension among the employees ($p = 0.076$). Compared with the employees, the self-employed reported significantly lower satisfaction with their overall health, lower quality of life, and lower work ability. The self-employed had also significantly more often reduced work hours and made changes in their overall work situation due to cancer.

Conclusion

Compared to employees, self–employed workers in Norway struggle with returning to work after cancer. It seems plausible that this may be because the two groups have different work tasks, and because self-employed have lower social support at work and less legal support from the Work Environment Act and Public Health Insurance.

Key messages

- Fewer self-employed cancer survivors return to work compared with employees
- Self-employed cancer survivors who return to work make more changes in work compared with employees

Direction of peer sexual harassment victimization and depressive symptoms in adolescents

Heléne Zetterström Dahlqvist

H Zetterström Dahlqvist[1], *E Landstedt*[2], *K Gillander Gådin*[1]
[1]Department of Health Sceinces, Mid Sweden University, Sundsvall, Sweden
[2]Department of Public health and Clinical Medicine, Umeå University, Umeå, Sweden
Contact: helene.zetterstrom-dahlqvist@miun.se

Sexual harassment in adolescence is common and there is growing evidence of the associations between sexual harassment and poor mental health outcomes such as depressive symptoms. The majority of studies of associations between SH and adverse mental health outcomes are cross-sectional, i.e. they have not been able to determine the directional path of causation. The aim of the current longitudinal study was to test competing hypotheses in respect of the direction of the relationships between peer sexual harassment victimization and depressive symptoms in boys and girls at ages 15 and 16. Data was obtained from a Swedish school-based cohort. The method for analysis was a cross lagged analysis of a three-wave questionnaire study of male ($n = 1146$) and female students ($n = 1196$) in grades seven to nine (age 14–16). The models are adjusted for socio-economy. Preliminary results are that there are stable pathways for both sexual harassment and depressive symptoms from age 14 to 16 in girls but not in boys. Also, in girls, between ages 15 to 16, the path from depressive symptoms to later sexual harassment is marginally stronger than vice versa $\chi2 = 143.3$, $DF = 69$, $p = .058$, $CFI = 0.96$, $RMSEA = 0.030$. Furthermore, the full cross-lagged model showed that a reciprocal relationship was also present $\chi 2 = 134.6$, DF = 67, CFI = .96, RMSEA = 0.029. For boys, none of the models were an acceptable fit, although the full cross-lagged model was borderline, CFI = 0.88, RMSEA = 0.05, A preliminary conclusion is that sexual harassment and depressive symptoms are consistent over time in girls and are something that girls encounter continuously during the course of high school. Another conclusion is that sexual harassment can cause depressive symptoms in some girls, while other girls with depressive symptoms are at increased risk for being victims. In addition, a bidirectional model was also a fairly good fit for girls showing that for some girls the causal relationship is circular with a positive feedback loop. However, independently of the direction of the relationship, school health promotion initiatives need to focus on a sexual harassment free psycho-social environment as an important determinant of girl's mental health. More research is needed to investigate how spending the high school years in such a psycho-social context may inform the future lives for adolescent girls.

Key messages

- Adolescent girls with depressive symptoms are at increased risk of sexual harassment victimization and victims are at increased risk of developing depressive symptoms
- School health promotion initiatives need to focus on a sexual-harassment-free psycho-social environment

Predictors of loneliness across the age-span

Mathias Lasgaard

M Lasgaard[1,2], *K Friis*[1]
[1]Public Health and Quality Improvement, Central Denmark Region, Aarhus, Denmark
[2]Department of Psychology, Southern University of Denmark, Denmark
Contact: mathias.lasgaard@stab.rm.dk

Background

Loneliness is a prevalent and urgent public health issue. An extensive body on research has recently demonstrated a strong association between loneliness and decreased mental and physical health. Nevertheless, the health-related risks of loneliness are still unrecognized by many institutions and organizations.

The predominant focus of attention in population-based loneliness research has been upon specific groups, especially the elderly. Much less attention has been given to loneliness across various age groups in representative samples. In the present study, we explored the relationship between socio-demographic factors and loneliness across five different age groups in a large representative sample.

Methods

The study is based on a public health survey from 2013 (n = 33.285) called ''How are you?''. The total response rate was 61%. Regression models were used to predict loneliness.

Results

Preliminary results suggest that the prevalence of loneliness is highest among adolescents/young adults and the very old. Moreover, being single/divorced and unemployed predicted loneliness.

Conclusions

The study aims to identify high risk groups across the life course and thereby help analysts, program developers, and policy planners aiming to prevent and reduce loneliness.

Key message

- Loneliness is a prevalent and urgent public health issue

Methods of measurement adherence to medication

Marcel Leppée

J Culig[1], *M Leppée*[1], *M Maric-Bajs*[1], *M Trinki*[2], *R Urek*[3], *I Radman*[4]
[1]Department of Pharmacoepidemiology, Andrija Stampar Institute of Public Health, Zagreb, Croatia
[2]Dr. Trinki, Private Medical Clinic, Zagreb, Croatia
[3]University Hospital Sveti Duh, Zagreb, Croatia
[4]School of Medicine, university of Zagreb, Zagreb, Croatia
Contact: marcel.leppee@stampar.hr

Background

There are a number of approaches to studying medication-taking behavior. Self-report measures that have the benefits of being cheap, easy to administer, non-intrusive, and able to provide information on attitudes and beliefs about medication. Potential limitations to self-report are that ability to understand the items, and willingness to disclose information, can affect response accuracy and thus questionnaire validity. The aim was to determine various kinds of measurement scales.

Methods

A computerized systematic search of the PubMed databases identified articles on scales for medication adherence measuring using the MeSH term medication adherence, compliance, and persistence combined with the terms questionnaire self-report. Adherence scales are identified mostly in the last few years (2005-2012). One of the main sources was article (Lavsa et. al) which evaluated literature describing medication adherence surveys/scales to gauge patient behaviors at the point of care. Articles were included if they evaluated or reviewed self-reported adherence medication scale applicable at chronic diseases and with good coefficient of internal consistency reliability (Cronbach's α (alpha). Articles that contained data about self-report medication adherence scales use were included.

Results

A total of about hundred articles were identified. Of the articles, 20% (20 of 100) were included in the review because of their relevance to the article topic. This article describes various self-report scales by which to monitor medication adherence, their advantages and disadvantages, and discusses the effectiveness of their application at different chronic diseases.

Conclusions

adherence and their derivatives (or subscales). Due to the different nature of the diseases, there is no gold-standard scale for measuring medication adherence. It can be nevertheless concluded that the nearest to gold-standard is a Medication Adherence Questionnaire (MAQ) scale by Morisky et al.

Key messages

- there are many self-report scales for measuring medication
- we are trying to find the optimum scale

Y.N. Poster Displays: Child and adolescent public health

Intussusception before and after anti-rotavirus vaccination introduction (2009-2013) in Italy

Vincenzo Restivo

V Restivo, C Costantino, F Tramuto, F Vitale
Department of Sciences for Health Promotion and Mother-Child Care ''G. D'Alessandro'', University of Palermo, Palermo, Italy
Contact: vincenzo_restivo83@hotmail.it

Background

Previous studies have identified a possible relationship between anti-rotavirus vaccines and intussusception risk although not confirmed by post licensure studies. In Italy some administrative regions started to introduce rotavirus vaccination in 2013. Monitoring intussusception in pre and post vaccination era will be crucial to ensure safety of the vaccine program.

Methods

An observational study was carried out to analyze age-specific (0-59 months) Italian trends in intussusception hospitalization rates before (2009–2012) and after (2013) anti-rotavirus vaccine introduction.

Results

A total of 2,728 hospitalizations for intussusceptions were observed in Italy from 2009 to 2013, with a M:F sex ratio of 1.73. Furthermore, 1,001 cases were reported in the age class 0 to 11 months (36.7%). Compared with 2009 (16.4 per 100,000), the hospitalization rate was greater in 2010 (18.8 per 100,000; rate ratio [RR], 1.15), decreased in 2010 (17.6 per 100,000; RR, 0.93), rise up in 2012 (22.0 per 100,000; RR 1.25) and went down in 2013 (21.6 per 100,000; RR, 0.98). In particular, intussusception hospitalization rate decreased where rotavirus vaccine was offered as universal mass vaccination (UMV) or for at risk groups in 2013 (15.3 per 100,000) respect to 2009–2012 (15.7 per 100,000). On the other hand intussusception rates increased in 2013 (24.9 per 100,000) compared to 2009–2012 (20.3 per 100,000) in the Italian area where anti-rotavirus vaccine was not offered or was offered in co-payment.

Conclusions

Intussusception is a rare condition with an undefined etiology that mainly happens in the first moths of life and in male sex. Potential association with rotavirus vaccination was still debated in literature. In Italy, in the first year after vaccination introduction was not observed an increase in hospitalization rates for intussusception. In detail, districts with UMV and for at risk group vaccination showed a small decrease in intussusceptions rates.

Key messages

- To monitor intussusception hospitalization rate before and after rotavirus vaccination introduction is strongly recommended
- In Italy intussusceptions rates slightly decrease in administrative regions implementing UMV or for at risk group vaccination strategies

Implementation fidelity and effect on smoking: X:IT - a school-randomized smoking prevention program

Lotus Sofie Bast

L Bast, P Due, P Bendtsen, A Ersbøll, A Andersen
National Institute of Public Health, University of Southern Denmark, Copenhagen, Denmark
Contact: loni@si-folkesundhed.dk

Objectives

To examine implementation fidelity of the X:IT intervention after one and two years of implementation and its effect on smoking prevention. Research questions; 1) How were the three main components in the program implemented from baseline to second follow-up? 2) What was the level of implementation fidelity for the three components at the schools? 3) Did the level of implementation fidelity impact the average number of new smokers at intervention schools?

Design

The X:IT intervention is a school-randomized trial testing a multi-component intervention to prevent smoking among adolescents.

Setting: 94 Danish elementary schools (51 intervention and 43 control schools).

Participants: Year 7 pupils (mean age: 12.5 years). Data were electronic questionnaires among pupils at baseline (4,161), first follow-up (3,764) and second follow-up (3,269), and among school coordinators at intervention schools at first and second follow-up (50 and 39 coordinators).

Interventions

The X:IT intervention included three components; 1) Smoke-free school grounds, 2) Smoke-free curriculum, and 3) Parental involvement (contracts and dialogues). Implementation fidelity was assessed by four domains: Adherence, dose, quality of delivery and participant responsiveness. These were combined into an overall school-wise implementation index.

Main outcome measures: The effect of implementation fidelity on the outcome ‘current smoking’ was examined by logistic regression analyses.

Results

One fourth of the schools implemented the program with high fidelity (all three components) at both first (12 schools, 24.0%) and second follow-up (11 schools, 28.2%). Level of implementation fidelity was strongly associated with smoking prevention both at first and second follow-up; e.g. the odds ratio (OR) for smoking at schools with high implementation both years was OR = 0.44 (95% CI: 0.32 to 0.68).

Conclusion

Implementation fidelity varied considerably between schools in the X:IT study; and higher implementation resulted in lower percentages of new smokers. To learn from interventions, it is important to study the relationship between implementation and effect. Only by doing so, we can distinguish the quality of the intervention from the success of the implementation, and improve current and future interventions.

Key messages

- The X:IT project shows the possibility to prevent twice as many smokers as the standard smoking prevention in Danish schools
- Implementation of the X:IT program varied considerably between schools. Implementation level was strongly associated with the potential to prevent adolescent smoking

The impact of the ‘Planning Health in School’ programme on two obese adolescent twins: a case study

Margarida Vieira

M Vieira, GS Carvalho
Research Centre on Child Studies (CIEC) - University of Minho, Braga, Portugal
Contact: m.margarida.vieira@gmail.com

Background

Obesity has a strong negative burden on the individual health of children, in their families and, in the overall public health care system of a nation. Effective interventions to stop and solve obesity are required.

‘Planning Health in School’ (PHS) is a Portuguese educational programme developed in 2011 that integrated healthy eating and active living issues to guide young people towards healthy behaviours, encouraging them to be active participants in their own changing processes. Implemented over a full academic year, PHS involved 449 adolescents of grade 6 (11-12 years old). This case study evaluates the impact of PHS on nutritional status of two obese twins, a boy and a girl of 11 years old.

Methods

Adolescents were subjected to three assessments: before PHS (baseline), after it (8 months) and 12 months later (follow-up). The evaluation included anthropometric measurements: weight, height and waist circumference (WC) and eating and lifestyle behaviours (food frequency consumption and lifestyle habits questionnaires, seven food records and semi-structured interviews).

Results

At baseline, the boy and the girl were considered obese (Cole et al., 2000), with a body mass index (BMI) of 37.50 kg/m2 and 26.46 kg/m2, and a WC of 117 cm and 91 cm, respectively. After the programme, improvements on attitudes, behaviours and anthropometric parameters were found: the boy decreased the BMI value by 10% and lost 9.0 cm in his WC (5,8% less), remaining in the obese category; the girl decreased the BMI by 8% and lost 8.7 cm in her WC (9.6% less), moving from obese to overweight category. At follow-up time a slight increase in the anthropometric parameters were found in both twins, but they did not come back to their baseline values.

Conclusions

Participation in the programme promoted positive changes on twins' attitudes and behaviours, as well as on nutritional status, showing that the PHS programme had a long-term effect, at least till the last assessment, one year later.

Key messages

- This case study shows the positive evolution on attitudes and nutritional status of two obese adolescent twins who participated on 'Planning Health in School' educational programme in Portugal
- 'Planning Health in School' is Portuguese educational programme that integrates healthy eating and active living issues to guide young people towards healthy behaviours

Factors influencing the frequency of children's consumption of soft drinks

Michelle Jongenelis

M Jongenelis[1], S Pettigrew[1], K Chapman[2], C Miller[3]
School of Psychology and Speech Pathology, Curtin University, Bentley, Australia
Cancer Council NSW, Woolloomooloo Australia
South Australian Health & Medical Research Institute, Adelaide, Australia
Contact: michelle.jongenelis@curtin.edu.au

Background

There are increasing concerns relating to the specific contribution of sugar-sweetened beverages to child obesity. Given that encouraging healthy eating habits can be easier in childhood before taste preferences and habits consolidate, interventions designed to improve children's diets need to address key factors contributing to children's consumption of sugar-sweetened beverages. These interventions have the potential to benefit both current and future cohorts.

Methods

Over 1,300 parents of children aged 8 to 14 years responded to an online survey about their children's food consumption behaviours. The relationship between a broad range of predictor variables and the frequency with which Australian children consume soft drinks was then explored using structural equation modelling techniques.

Results

Parents' attitudes to soft drinks, children's pestering behaviours, and perceived social norms relating to children's consumption of these products emerged as primary predictors of soft drink consumption frequency in children. Pestering and social norms were identified as especially important factors as a result of their significant direct effects on consumption frequency and significant indirect effects on consumption frequency via their impact on parents' attitudes to soft drink.

Conclusion

Interventions that focus on pestering and social norms have the potential to influence parents' attitudes to soft drinks as well as their provision behaviours, possibly producing favourable dietary behavior changes that can be maintained over time.

Key messages

- Pestering and social norms were identified as especially important factors to address in reducing the frequency with which children consume soft drinks
- Interventions that focus on these factors have the potential to influence parents' attitudes and food provision behaviours, possibly producing favourable behavioural changes that can be maintained

Short term effectiveness of the Unplugged program in Slovakia: the Mediational role of self-esteem

Marianna Berinšterová

M Berinšterová[1], O Orosová[2], M Miovský[3]
[1]Department of psychology, Faculty of Arts, Pavol Jozef Safarik University, Košice, Slovakia,
[2]Department of educational psychology and health psychology, Faculty of Arts, Pavol Jozef Safarik University, Košice, Slovakia,
[3]Department of Addictology, First Faculty of Medicine, Charles University in Prague and General University Hospital in Prague, Czech Republic
Contact: marianna.berinsterova@gmail.com

Background

The effectiveness of the program Unplugged has been demonstrated in several countries in Europe. The aim of the research is to examine the short-term effect of the program Unplugged in relation to the lifetime prevalence of alcohol use and smoking among adolescents. The mediational role of positive self-estem is explored. Self-esteem as a protective factor of substance use, according to the theory of problem behaviour, corresponds to the theoretical background of Unplugged.

Methods

The data were collected at the baseline (T1 - immediately before the program was implemented) and in 2 follow-ups (T2 - immediately after the program; T3 – 3 months after the program) in a representative sample of 1298 (52.3% females) primary school pupils ($M = 11.52$, $SD = 0.61$). The lifetime prevalence of alcohol use and smoking measure was used (dichotomised: 0-not used, 1-used) as an outcome measure and the positive self-esteem measure (Self-liking/Self-competence scale) was used to explore the effect of the mediational variable. Linear and logistic regressions were used to verify the mediational effect of program participation.

Results

At T2, no significant association was found between participation in the program Unplugged, outcome variables and mediational variable. At T3, an indirect mediational effect of positive self-esteem was found between Unplugged participation) and lifetime prevalence of smoking cigarettes ($Sobel = 2.03$, $p < 0{,}05$).

Conclusion

A short term indirect mediational effect of positive self-esteem in the program Unplugged was found. Further exploration is needed to evaluate the long term effects of the program Unplugged in Slovakia in terms of behavioural outcomes and expected mediators.

Key message

- An evaluation of Unplugged in Slovakia was conducted. An indirect effect was found on lifetime prevalence of smoking as well as a mediational role of self-esteem

School environment and tobacco smoke - respect of Law Regulations in function of health

Marija Jevtic

R Velicki, M Jevtic, J Bjelanovic, M Kemenj, S Kobilarov, B Matic, K Spasovic
[1]Center for Hygiene and Human Ecology, Institute of Public Health of Vojvodina, Novi Sad, Serbia
Contact: marija.jevtic@uns.ac.rs

Background

According to Parma Declaration school environment is an important determinant of children's health. Healthy environment with absence of tobacco smoke is directly related to health improvement.

Objectives

The purpose of this paper is to present the results of a survey designed for teachers and students of 6th to 8th grades from 28 schools in the City of Novi Sad, and is related to tobacco use in school environment. During the 2014 a survey was conducted by the Institute of Public Health of Vojvodina, using the WHO methodology (standardized questionnaires) adjusted by School Survey Working Group (Institute of Public Health of Serbia).

Results

Total of 128 school personnel (79% females and 20.3% males) completed the questionnaire. Results showed that 95.28% of the interviewees did not smoke at school, 91.34% knew about school policy that prohibits the use of tobacco products in school, 87.40% were aware of school policy against usage of tobacco products for students during school activities, 80% knew about school program regarding prevention of tobacco use. Student's questionnaire was conducted on a total of 4460 students (2195 girls, 2215 boys and 49 undeclared). Quarter of them responded that during the last school year they have discussed the harmful effects of smoking on human health with teachers, 96.2% of students never smoked in school or elsewhere, 14.75% experimented with smoking, 54.28% of respondents knew that the lower age limit for buying tobacco products is 18 years.

Conclusions

It is important to implement and continually carry out programs dealing with use of tobacco in school environment.

Acknowledgements: Project was supported by the Secretariat for Health, Social Policy and demographics, Province of Vojvodina.

Key messages

- Necessity of including parents and teachers to work together on this assignment
- Importance of following the legally regulated ban on smoking in public places

Intervention centred on playground marking to promote physical activity in Italian schoolchildren

Maria Scatigna

M Scatigna, M Cameli, T Licursi, K Ortenzi, MG VInciguerra
University of L'Aquila, Italy
Contact: maria.scatigna@cc.univaq.it

Overweight prevalence in Italian children is among the highest in Europe, in some regions above 40%. Moreover, is worrying the 'involutive' trend of motor skills in subsequent generations.

The school is a privileged setting to increase PA up to recommended daily levels and it should implement comprehensive programs: physical education, before and after school PA, daily playtime (recess), active breaks in classroom, involvement of parents and community.

The intervention involved 82 school-children, 6–11 years aged, in a school of Central Italy. The main action consisted in realizing a 'marked playground', an outdoor area where children play guided by the colourful shapes painted on the surface (geometric, symbols, roads, footprints). Pupils have started with instructional games strictly defined by rules, but after a few weeks, they freely changed the rules and invented new ways to use the painted marks also by painting original drawing created by them. To ensure safety conditions the 'supervisors' (physical educators, teacher, assistant) and the children have been trained about the rules for safety and management of space, time and conflicts that may arise.

From October 2012 to June 2013 the children used the playground three days a week after the lunch time.

The intervention has been evaluated about its effectiveness (children's health and fitness outcomes) and the process (teachers' reports and opinions).

The main short-term outcome was a significant increase in the proportion of children reaching recommended daily PA, especially in the subgroup not involved in structured extra-school sport activities (from 21.4% to 63.5%). Moreover there was a significant improvement in coordinative motor skills.

The teachers confirmed a positive impact on behaviours and attention level in the classroom and noticed an improvement on childrens' academic achievement.

The intervention is effective and reproducible also in other community settings (municipalities, entertainment centres).

Key messages

- The school marked playground may be the only opportunity for some children to be physically active in a day. They can develop and reinforce the skills to be active in their own time
- The intervention produced as material resource the model of playground – planimetry and user manuals - easily reproducible in other spaces and lasting against a relatively low cost

Adolescent health needs in Veneto Region, Northeast of Italy - year 2011

Francesca Menegazzo

F Menegazzo[1], L Salmaso[2], L Visonà dalla Pozza[2], E Casagranda[1,4], P Facchin[1]
[1]Rare Diseases Coordinating Centre - University of Padua, Veneto Region, Italy
[2]Epidemiology and Community Medicine Unit, Maternal and Child Health Department, Padua, Italy
Contact: menegazzofrancesca@libero.it

In the last two decades, socio-economic and cultural changes have influenced health affecting particularly young people, who are already inherently critical. Aim of the study was to analyze adolescent health in Veneto (222,339 inhabitants aged 13–17), region with high income and high quality health services, highlighting the critical issues, in order to adapt social-health services to give effective response to health needs.

A multi-source study was conducted selecting year 2011 data on people aged 13–17, from hospital discharge records, death certificates, Birth Registry and Rare Diseases Registry. Death rates for 15–24 yrs are available aggregate.

Over the last 20 years: death rate has halved (males 10 vs 5/10,000 inh, females 3 vs 1.5/10,000 inh), the main causes are external causes, all of which dropped (road/domestic injuries) except suicide which increased (4.1 vs 4.4/100,000 inh). About minors, admission rate is 43/1000 inh; main causes are trauma, poisoning; 71% of patients have a single admission, 23% multiple admissions for different causes, 5% suffer from a chronic disease, 1% from a rare one. Admission rate for alcohol intake complications is 14–6/100,000 inh for males-females respectively; 87% for acute alcohol intoxication, 13% alcohol dependency. Admission rate for drugs use complications is 14–8/100,000 inh for males-females respectively, 44% due to chronic use. Rate of pregnancies in minors is 5/1000 inh; 64% of Italians have an abortion, 51% of foreigners give birth. 83 minors have more than one pregnancy. 54 minors give birth at least 2 times before the age of 17.

The study notes the achievements in injury prevention, but greater efforts must be made for suicide prevention and to modify high-risk behaviors, where the chronicity aspect is alarming. It is urgent to address the issue of pregnancies and births, particularly the repeated ones, which combine very young maternal age with little spacing between pregnancies, increasing the risk of child abuse.

Key messages

- Communities with high quality health services observed a rise in adolescent health, but now health needs are changing rapidly: public health services have to assess them to provide effective responses
- Critical issues to be addressed in adolescents health are: suicide, chronic patients transition to adulthood, health-risk behaviors and pregnancies, because there are children giving birth to children

Obese children's practices and perceptions of physical activity

Eva Ladekjær Larsen

P Olaya-Contreras[1,2], *DC Ocampo*[1], *E Ladekjær Larsen*[2]
[1]Department of Postgraduate studies, Faculty of Nursing, University of Antioquia, Medellín, Colombia
[2]Unit for Health Promotion Research, University of Southern Denmark, Esbjerg, Denmark
Contact: elarsen@health.sdu.dk

Globally, childhood obesity has increased over the last decades and is a serious public health challenge. Physical activity (PA) plays an important role in weight management; however children do not meet the recommend levels of PA. A growing number of theories address PA and motivation to engage in PA as a complex interaction between individual preferences, experiences and physical and social environments. In this study we follow this approach to explore the contexts that shape obese children's engagement in PA. Particularly we focus on 1) the PA practices that obese children engage in and 2) how they make sense of these practices.

Methods

We conducted the study in Medellín, Columbia, by using a qualitative approach consisting of observational methods during physical education (PE) classes, focus group interviews (2) and individual unstructured (6) and semi-structured interviews (21). The participants were obese/overweight children (10-14 years old) from a local public school. The data was analysed by use of grounded theory.

Results

The participants were mainly engaged in PA in PE class at school. They identified that PA were pre-determined by the PE teachers and that the teachers did not consider the interests or the capacities of the children. The participants associated PE classes with rules and competition and had very few experiences of engaging in fair competitions. Contrarily, PA such as biking or walking taking place in their neighbourhood during leisure time was linked to pleasure, fun, and socializing with friends, but only occurred on an infrequent basis.

Conclusions

PE classes were found to be demotivating for obese children due to experiences of unfair competition and teachers' non-participative teaching methods. Moreover, PA in leisure time was not organized and only performed on an ad hoc basis. To overcome these challenges future interventions could organize PE classes to match the needs of obese children and organize PA during leisure time on a frequent basis.

Key messages

- Physical activities at school are perceived to be too competitive
- Participatory approaches are recommend to motivate obese children

Inadequate prenatal care as a factor for prematurity at the city of Pleven, Bulgaria

Mariela Kamburova

MS Kambourova, SL Georgieva
Medical University, Faculty of Public Health, Department of Public Health Sciences, Pleven, Bulgaria
Contact: mariela_kamburova@yahoo.com

Background

Premature birth is rated as one of the most important single causes of the global burden of disease in neonatal period. Many studies have shown higher rates of adverse outcomes for pregnant women who receive inadequate prenatal care. In Bulgaria, every pregnant woman has access to free prenatal care, but no information is available regarding factors related to the adequacy of prenatal care or its effect on pregnancy outcome. The study evaluates the association between prenatal care adequacy and adverse pregnancy outcomes in Pleven.

Methods

A case-control study was carried out in Pleven between 2007 and 2013. The study was comprehensive for premature children (all 58) and representative for full-term infants (192 or 10.4% of all full-term infants) born in 2007 in the University Hospital of Pleven and residing in Pleven. The information for prenatal care used by mothers was gathered retrospectively by interviewing mothers during home visits. A special questionnaire was designed for the purpose of the study. Prenatal care was classified as inadequate, intermediate or adequate based on Kessner's Adequacy of Prenatal Care Index. To estimate the association of adequacy of prenatal care and the defined outcomes odds ratios (OR) and 95 per cent confidence intervals (95% CI) were calculated.

Results

Inadequate and intermediate prenatal care (compared with adequate) was significantly associated with a higher risk of premature birth. Factors found to increase the likelihood of a premature birth were: inadequate timing of initiation of prenatal care (OR 4.23, 95% CI = 1.41-12.69); less than five prenatal care visits (OR 4.96, 95% = CI 1.65-14.95); less than two ultrasound examinations (OR 2.45, 95% CI = 1.27-4.71).

Conclusion

Our results indicate the need for active health and educational actions by health professionals in the region to avoid premature births.

Key messages

- There is an association between prenatal care adequacy and adverse pregnancy outcomes in the town of Pleven, Bulgaria
- There is a need for active actions by health professionals to avoid premature birthsld and adolescent public health

The situation of the fetal head at term in relation with the delivery mode

Monica Laura Cara

ML Cara[1], *IM Prejbeanu*[1], *RC Drăguşin*[2], *M Florea*[2], *S Tudorache*[2], *N Cernea*[2], *DG Iliescu*[2]
[1]Public Health Department, University of Medicine and Pharmacy Craiova, Romania
[2]Prenatal Diagnostic Unit, University of Medicine and Pharmacy Craiova, University Emergency County Hospital, Craiova, Romania, Craiova, University Emergency County Hospital, Craiova, Romania
Contact: daimoniquelle@yahoo.com

Objective

The aim of this observational study was to document the frequency of fetal head engagement (FHE) longitudinally at term before the onset of labor and to determine the potential of the pre-labor situation of the fetal head in predicting labor outcome.

Method

Prospective pilot study, deployed in a tertiary maternity hospital. In unselected pregnant women trans-abdominal and trans-perineal ultrasound evaluations were started at the first presentation at term. Clinical and ultrasound variables were evaluated for analysis to describe fetal head position and progression of the fetal head in the maternal pelvis. The measurements were weekly performed until birth. Maternal and labor characteristics were noted. Multiple pregnancies, non-cephalic presentations, fetal hypotrophy and macrosomy, scarred uterus and elective cesarean cases were excluded.

Results

61 primiparous and 24 multiparous were evaluated. FHE at term before the onset of labor was 3.1%-6.2%, depending on the cut-off considered. Less than 5% of the primiparous showed engagement at any evaluation (2.6-4.4%, depending the cut-off applied): 1.5-4.7% of them at 37GW presented, and 2.6-4.4% in the week before delivery. In the multiparous, the overall engagement rate was 4.2%. The vast majority, but not all of the FHE cases, delivered vaginally (80-90%, depending the criteria).

Conclusion

Objective ultrasound determination of FHE showed rate much smaller rates than described in the classic literature. The preliminary data suggests that fetal head non-engagement should not be considered a risk factor for arrested labor disorders and caesarean delivery.

The study was under the frame of European Social Found, Human Resources Development Operational Programme 2007–2013, project no. POSDRU/159/1.5/136893

Keywords: fetal head engagement, transperineal ultrasound, labor outcome

Key message

- Fetal head non-engagement should not be considered a risk factor for arrested labor disorders and caesarean delivery

Trends of hyperglycemia and its associations with body mass index in Siberian adolescent population

Larisa Zavyalova

DV Denisova, JI Ragino

Federal State Budgetary Scientific Institution, ''Institute of Internal and Preventive medicine''. Novosibirsk, Russia

Contact: zavyalovalarisa@gmail.com

Hyperglycemia is unifying basis of all manifestations of metabolic syndrome (MS). The prevalence of MS is currently tends to sustainable growth in adolescent population. The purpose of the study was to examine the prevalence and trends of hyperglycemia and its associations with body mass index (BMI) in adolescent population of Novosibirsk.

Methods

Representative samples of adolescents aged 14–17 were investigated in Novosibirsk: 663 adolescents were observed at 2003, 742 - at 2009, 636 – at 2014. The program included questionnaire, double measurement of blood pressure, anthropometry (weight, height, waist circumferences). Blood lipid levels, basal insulin and fasting glucose were collected. Fasting hyperglycemia was determined if the levels of glucose $\geq$ 5,6 mmol/l.

Results

Average blood glucose levels in adolescents increased from 4,6 to 4,8 mmol/l ($P = 0,001$), average BMI levels increased from 19,6 to 21,1 (($P = 0,001$). The prevalence of fasting hyperglycemia increased during the period 2003–2014 from 1,5% to 8,5%. Adolescents with hyperglycemia had higher BMI levels than adolescents without hyperglycemia: 20.9 and 19.6 in 2003 year; 22.5 and 20.5 in 2009 year (($P = 0,001$) and 22.3 and 21.0 in 2014 year ($P = 0,06$), respectively in both gender groups.

Conclusion

The prevalence of hyperglycemia in Siberian adolescent population increased during the studied period (2003-2014). Associations of hyperglycemia and BMI

were revealed. Early detection of hyperglycemia and increased levels BMI as metabolic disorder may prevent the development of MS and subsequent CVD and diabetes type 2.

Key messages

- The prevalence of hyperglycemia in Siberian adolescent population increased during the period 2003–2014 years

Factors related to refusal skills among juveniles

Beata Gajdosova

B Gajdosova[1], O Orosova[1], A Janovska[1], M Berinsterova[1]

[1]Department of Educational Psychology and Health Psychology, Faculty of Arts, Pavol Jozef Šafárik University in Košice, Slovak Republic

[2]Department of Psychology, Faculty of Arts, Pavol Jozef Šafárik University in Košice, Slovak Republic

Contact: beata.gajdosova1@upjs.sk

Background

While there is consistent evidence that the early initiation of smoking cigarettes, alcohol consumption and experience with marijuana are associated with a whole range of future negative outcomes, relatively little attention has been directed at refusal skills among very young adolescents (10–12 years old).

Methods

The data were collected in 2013 in 60 elementary schools ($N = 1298$, 53.3% girls, age $M = 11.72$ years, $SD = 0.67$, APVV-0253-11). Binary logistic regression were used for the analysis which was carried out for boys and girls, with cigarettes, alcohol and marijuana refusal as the dependent variables and self-esteem (self-liking, self-competence), emotional regulatory, self-control and accessibilities as the independent variables.

Results

Models containing all predictors were statistically significant for girls ($= 48.15 = 47.52; = 28.97$, all $p > 0.001$) and cigarettes and alcohol refusal for boys ($= 28.49$, $p > 0.001, = 17.67$, $p < 0.01$). The models showed that for boys there were significant associations between all types of accessibilities (95% CI = 1.40-2.39, 95% CI = 1.24-1.93, 95% CI = 1.00-4.13) and all types of refusal skills. For girls, significant associations were found between all types of accessibilities (95% CI = 1.31-2.00, 95% CI = 1.23-1.87, 95% CI = 1.11-1.75) and all types of refusal skills; between self-liking (95% CI = 0.86−0.99), self-competence (95%CI = 1.02-1.22), emotional regulation (95% CI = 0.85-01.00) and cigarettes refusal skills; self-liking (95% CI = 0.88-.1.00), self-competence (95% CI = 1.01-1.20), self-control (95% CI = 0.87−0.96) and alcohol refusal skills; self-control and marijuana refusal skills (95% CI = 0.81-1.00).

Conclusions

This study supports the importance of the specific function of self-esteem and self-regulatory mechanism regarding refusal skills with respect to gender differences

Key message

- The general importance of public health policy concerning the accessibility to cigarettes, alcohol and marijuana for juveniles needs to be stressed

Thermal confort in Romanian schools: urban versus rural

Bianca Naidin

IM Prejbeanu[1], B Naidin[1], M Greere[2], MG Mihai[1]

[1]Environmental Health Department, University of Medicine and Pharmacy of Craiova, Romania

[2]Surgery of Cioroiasi, Dolj County, Romania

Contact: igiena.sanatateamediului@gmail.com

The thermal comfort depends on climatic variables (air temperature, air humidity, air movement and radiation), activity, clothing, health and age. Having a larger surface area to body mass, children are more susceptible than adults to heat/cold disorders, including the impact on the concentration capacity.

In this context, we measured temperature, relative humidity (RH), air velocity and carbon dioxide (CO2) level in all the 41 classrooms of two elementary-middle schools – a three-floored urban and a one-floored rural one, where 917 children were learning. The measurements were taken every season, at the beginning and the end of the classes, but also during the breaks. Both schools use central heating systems but have no cooling systems. Children evaluated the classroom environment using a seven point thermal sensation scale. Teachers were asked to report disorders they observed in children.

All the seasons, temperatures were higher in urban classrooms comparing to the rural ones ($p < 0.01$). The highest temperatures, exceeding 30° C, were measured in June, in the afternoon, in the second-floored classrooms of the urban school, on its western side; the lowest (up to 14.8° C) – in February, in the rural school. At high temperatures, teachers reported students were tired, sweaty, bored, not responsive, unable to concentrate. A number of 151 out of 328 (46.3%) measurements of RH exceeded the maximum accepted value (60%), especially in winter, when opening the windows during the breaks to ventilate the classrooms is reduced. Air velocity, measured during the breaks, respected the accepted values. The CO2 level was higher than 1000 ppm (up to 3102 ppm) every time it was measured in the rural school (statistically significant differences urban vs. rural, $p < 0.01$). Only 17% of the children's evaluations indicated ''thermal comfort''.

The need to improve the management strategies of cooling systems in schools to maintain comfortable conditions for students and teachers is evident.

Key messages

- The thermal discomfort could generate disorders in school children
- Using cooling systems in schools to maintain comfortable conditions for students and teachers is an obvious need

Determinants of flu vaccine uptake among the Italian pediatric high risk population in 2012–2013

Claudia Recanatini

C Recanatini, G Zocco, S Galmozzi, A D'Alleva, P Barbadoro, E Prospero
Department of Biomedical Sciences and Public Health, Unit of Hygiene, Preventive Medicine and Public Health, Università Politecnica delle Marche. Ancona, Italy
Contact: claudia.recanatini@gmail.com

Background

Children with chronic conditions are at great risk of complications by influenza virus, thus they have been included in targeted groups during immunization programs, nevertheless influenza vaccination (IV) rates remain low in this population.The aim of this study was to evaluate IV coverage in the pediatric population affected by chronic conditions in Italy, and to analyze the socio-demographic and clinical determinants associated with IV.

Methods

Data have been retrieved from a national survey carried out in the 2012–2013 period, in a sample representative of the Italian pediatric population (1-18 years). For each respondent, information on socio-demographic, health condition and patterns of health care utilization were retrieved. After bivariate analyses, multilevel regression models were used to assess determinants of IV.

Results

Of the19 951 children who took part in the survey, 2 682 were reported to suffer from chronic disease (asthma, chronic respiratory disease, heart disease, diabetes, oncological disease). Overall, 6.51% of children were reported to be vaccinated against seasonal influenza in the past 12 months, while among the children with high-risk conditions the rate was 10.07% ($p < .001$). Multilevel regression revealed that suffering from chronic disease, living in a numerous family, living in the Centre or in the South of Italy rather than in the North, having had contacts with health care providers in the past 12 months are associated with an higher likelihood of IV uptake; while increasing age and having used some type of complementary and alternative medicine in the past three years are predictive of lower uptake.

Conclusions

IV coverage among children in Italy remains low, even among children with high-risk conditions. These results, despite being provisional, highlighted several determinants for non-IV, which should be considered in developing strategies to increase the coverage among at-risk children.

Key messages

- Influenza vaccine coverage among children in Italy (6.51%) remains low, even among those suffering from high-risk conditions (10.07%)
- Living in the Centre or in the South of Italy rather than in the North is associated with an higher likelihood of flu vaccine uptake in the Italian pediatric population

Peer pressure and family smoking habits influence smoking uptake in school going male adolescents

Shafquat Rozi

S Rozi[1,2], S Mahmud[3], G Lancaster[2]
[1]Department of Community Health Sciences, Aga Khan University, Karachi, Pakistan
[2]Department of Mathematics and Statistics, Lancaster University, Lancashire, United Kingdom
[3]Visiting Faculty, Department of Medicine, Department of Paediatrics & Child Health, Aga Khan University, Karachi, Pakistan)
Contact: shafquat.rozi@aku.edu

Introduction

Among young teens, about one in five smokes worldwide. Adolescents spend a considerable amount of their time in school, the school environment is therefore important for child health practices and outcomes.

Objectives

We aimed to investigate the impact on smoking behavior of the school environment and the personal characteristics of male teenage students attending schools in Pakistan, taking into account the survey sampling structure.

Methods

A two-stage cluster sampling with stratification was employed, and we interviewed 772 male secondary school students. Since we have students nested within schools we adopted random effect and generalizing estimating equation GEE models.

Results Peer pressure in particular had a strong influence on adolescents smoking, those who friends smoked were up to 6 times more likely to smoke. Family smoking habits were also significantly associated with increased adolescents smoking, but those students whose mother was more highly educated were 50% less likely to smoke. The fitted random effect model indicated that the between school variability was significantly different from zero (p-value of likelihood ratio test < 0.01), indicating differences in smoking habits between schools. We also fitted a random coefficient model which showed that variability among schools was not significantly different for public and private schools.

Conclusion

Public health campaigns for smoking cessation should not only target the individual but also the families of adolescents attending schools. Parental counseling about the influence of family tobacco use on their children may bring about encouraging results. One of the most important commitments a country can make for future, economic, social, political progress and stability is to address the health and development needs of its adolescents. Results of random effect models and GEE indicating that there is variability between schools and we need to take cluster variation into account.

Key message

- Public health campaigns for smoking cessation should not only target the individual but also the families of adolescents attending schools

Factors affecting growth and bone development in minors. Case report

Madalina Dumitru

M Dumitru[1], D Mangaloiu[1], A Punga[1], Adina Lungu[2]
[1]Carol Davila University of Medicine and Pharmacy Bucharest, Romania
[2]The University Emergency Hospital Bucharest, Romania
Contact: madalina.mihaela26@yahoo.com

Background

Growth is a complex biological process, product of the interaction between multiple endogenous factors (genetic, hormonal, metabolic, receptivity of target tissues) and exogenous factors (nutrition, physical activity and psychosocial influences), through which living creatures, at the same time as increasing their size, they physiologically mature and progressively acquire a complete functional capacity. The growth process, although it does not occur in a uniform manner, takes place according to an organism's nutrition. In Romania the cases of anthropological forensic exams performed in order to estimate the age of minors include mostly people with an extremely low socio-economic status, frequently homeless people that did not have a certified copy of the medical birth certificate issued or who don't have a birth certificate, most often caused by the fact that the parents did not go to the City Hall to obtain it.

Objectives

We report a case of estimating the age in two twins separated at birth and discuss the consequences of environment factors in altering the anthropological markers for age estimation in the living. One child had a Birth Certificate, was cared for by the maternal assistant, had proper alimentation, and received all needed medical care. The second one was practically living in the streets, without proper nourishment, and without needed receiving basic medical care.

Results

The first child had a weight with 7 cm above the mean weight in Romania for 7 year-old girls, whilst the other one had 8 cm below the mean. Even if they are not monozygotic twins, and genetic variability can play a role in these differences, the difference is too high, keeping in mind that they are only 8 years old, and the genetic pool is similar.

Conclusions

Even in circumstances of severe malnutrition, there may be some formation of new bone; it will, however, occur while bone formed earlier is deteriorating. During protein malnutrition, bone growth is largely halted, and existing bone is cannibalized by the body as a source of protein.

Retardation in skeletal development has been associated in literature with a decreased socio-economic status, climatic differences, genetics, ethnicity, and so on. ''Socio-economic'' malnutrition is still the main cause of a high percentage of cases of undergrowth.

Key messages

- During childhood, bones are growing rapidly
- Bone growth is fueled by a positive energy balance, created by a well-balanced diet and healthy living environment

Risk Factors for Developing Myopia among Schoolchildren in Yerevan and Gegharkunik province

Aida Giloyan

A Giloyan[1], T Harutyunyan[2], V Petrosyan[2]
[1]Garo Meghrigian Institute for Preventive Ophthalmology, School of Public Health, American University of Armenia
[2]School of Public Health, American University of Armenia
Contact: aida@aua.am

Background

Myopia is a complex condition which might lead to visual impairment and blindness. This study assessed the risk factors for myopia and the difference in prevalence of myopia between urban and rural regions in school children in Armenia.

Method

The interviewer-administered survey along with eye screenings was conducted among school children living in Yerevan (the capital city) and Gegharkunik province. The research team used multi-stage random sampling technique to draw a representative sample of 1,260 school children 5–19 yearls old. Sydney Myopia Study questionnaire was used to develop structured questionnaires for both parents and children. Children underwent detailed ophthalmologic screening examination, including measurements of visual acuity by Golovin-Sivtsev chart, cycloplegic skiascopy and dilated eye fundus examination.

Result

Mean age of children was 13 years. Boys comprised 46.6% of the sample.

Refractive errors were prevalent among 26.8% of children and 18.1% of school children had myopia. In a univariate analysis age, gender, height, weight, region, school achievement, parental myopia, near work, continuous reading and additional studies were significantly associated with having myopia, while physical and outdoor activities had protective effect against myopia. After adjusting for confounders age (OR = 1.11; 95% CI: 1.04 – 1.19), region (OR = 2.41; 95% CI: 1.62 – 3.58), school achievement (OR = 1.95; 95% CI: 1.08 – 3.55), parental myopia (OR = 2.89; 95% CI: 1.78 – 4.68), and continuous reading (OR = 2.20; 95% CI: 1.39 – 3.47) were significantly associated with having myopia.

Conclusion

Both genetic and environmental factors have independent roles in developing myopia. The number of hours of general near work does not play a major role in the development of myopia, but the length of time of focused continuous reading does.

Key messages

- Both genetic and environmental factors have independent roles in developing myopia among school age children
- The length of time of focused continuous reading is significantly associated with myopia among school age children

Montelukast during pregnancy and congenital anomalies. A cross-sectional study in Denmark

Clara Cavero Carbonell

C Cavero-Carbonell[1], A Vinkel-Hansen[2,3], L de Jong-van den Berg[4], MJ Rabanaque-Hernández[5], C Martos-Jiménez[1,6], O Zurriaga[1,6,7], E Garne[2]
[1]Rare Diseases Research Area. FISABIO-Public health, Valencia, Spain
[2]Hospital Lillebaelt-Kolding, Denmark
[3]University of Copenhagen, Denmark
[4]University of Groningen, The Netherlands
[5]Universidad de Zaragoza, Spain
[6]Spanish Consortium of Epidemiology and Public Health Research (CIBERESP), Spain
[7]Dirección General de Salud Pública, Valencia, Spain
Contact: cavero_cla@gva.es

Background

Montelukast drug is approved as an effective adjuvant therapy of asthma in pregnant women but its risk of congenital anomalies (CA) has not been established. Objective: To determine differences in pregnancy outcomes between groups of Danish women whose pregnancy has ended between 1998 and 2009 according to their exposure to Montelukast.

Methods

Cross-sectional observational study in Danish women, selecting from the Birth Registry the pregnancies (live births and stillbirths) and from the Patient Registry the spontaneous abortions and induced terminations (TOPFA).

Montelukast exposure was obtained from the Prescription Registry, code R03DC03 of the Anatomical Therapeutic Chemical classification. The exposure period was considered from three months before the last menstrual period until the end of the first trimester. Four groups were studied: 1) women with prescription for Montelukast, 2) women with prescription for Montelukast and other anti-asthmatic drugs, 3) women with prescription for other anti-asthmatic drugs, and 4) women without prescription for Montelukast or for any other anti-asthmatic drugs.

Results

A total of 754,300 singleton pregnancies were identified with more than twelve weeks gestational age: 401 pregnancies in group one, 426 pregnancies in group two, 24,878 in group three and 728,595 in group four.

Significant differences for the following maternal characteristics were found: marital status, parity, year of pregnancy, hospital diagnosis of asthma and maternal education.

No significant differences were found for the risk of CA. Adjusted odds ratio for CA was 1.41 (95% CI 0.86-2.33) for the group one. 50 AC were identified in 33 live births and 3 in TOPFA for groups one and two.

Conclusions

Women treated with Montelukast had a higher risk of preterm birth and maternal complications, but the higher risk of CA was not found. Further analysis including more pregnancies will be needed in order to determinate the risk more accurately.

Key messages

- Montelukast drug is approved as a therapy of asthma in pregnant women but its risk of congenital anomalies has not been established
- Women treated with Montelukast had a higher risk of fetal and maternal complications

The weight status of preschool children: a population survey of BMI and lifestyle characteristics

Serena Broccoli

L Bonvicini[1,2], S Broccoli[1,2], AM Davoli[3], A Fabbri[4], E Ferrari[3], E Bellocchio[5], P Giorgi Rossi[1,2]

[1]Epidemiology Unit, Azienda Unità Sanitaria Locale, Reggio Emilia, Italy

[2]IRCCS Arcispedale Santa Maria Nuova, Reggio Emilia, Italy

[3]Primary Care Pediatrician, Azienda Unità Sanitaria Locale, Reggio Emilia, Italy

[4]Public Health Nutrition Unit, Azienda Unità Sanitaria Locale, Reggio Emilia, Italy

[5]Primary Health Care, Azienda Unità Sanitaria Locale, Reggio Emilia, Italy

Contact: serena.broccoli@ausl.re.it

Background

In Italy the prevalence of overweight and obese children is one of the highest in Europe. Child obesity is a risk factor for adult obesity and related diseases.

Measuring BMI in preschool children is recommended by main guidelines in order to early identify overweight and start preventive measures. However there are only few studies in Italy on this topic.

The aim of the present study is to estimate overweight and obese prevalence at three years in Reggio Emilia province and to investigate their determinants.

Methods

From 1/7/2013 to 31/3/2015 all family paediatricians in Reggio Emilia Province measured BMI and collected a questionnaire on behavioural and lifestyle risk factors during the routine health check of three years old children. Analyses are restricted to children examined between 33 and 39 months of age. Data were collected through a web-based form.

Children have been categorized according to the IOTF (International Obesity Task Force) scores as normal, overweight and obese. The association between overweight/obesity and potential risk factors have been analyzed through logistic regression.

Results

6914 out of 8127 eligible children (85,1%) attended the three-year health check.

The coverage was similar between gender while it was higher for Italians (89,1%) than for immigrants (71,4%). Overweigh and obese children were 7.9% and 2.0%, respectively. Prevalence was higher in females (9.5 vs 6.2 and 2.2 vs 1.8 for overweight and obese, respectively) and similar between Italians and immigrants (8.1 vs 7.0 and 2.0 vs 2.1 for overweight and obese, respectively).

Risk of being overweigh and obese was higher for girls and for children of low educational level and overweight mothers.

Conclusions

The prevalence of overweight and obese at three years is lower than that observed at 6–8 years. Consistently with previous studies, child's gender and mother's educational level and BMI are associated with child overweight.

Key messages

- Overweight and obese are 7.9% and 2.0% of 3 years old kids
- Risk of overweight was similar for Italians and immigrants and was higher for girls and kids of low educational level and overweight mothers

Factors Associated with Alcohol Drinking among School-aged Pupils

Anna Janovska

A Janovska, O Orosova, M Berinsterova, B Gajdosova

Department of Educational Psychology and Psychology of Health, P.J. Safarik University in Kosice, Slovakia

Contact: anna.janovska@upjs.sk

Background

Alcohol is the first drug of choice for youths. Many young people experience the consequences of drinking at an early age. This study aims to explore the potential of self-control, parental control, positive and negative expectations of drinking, alcohol consumption of best friends and gender in explaining alcohol drinking in primary school children.

Methods

A representative sample of 1094 (54.4 % female) primary school pupils (age $M = 11.72$ years, $SD = 0.67$ years) was collected in September 2013 within the APVV-0253-11 project aimed at school-based universal prevention. The respondents completed the Self-Control Scale and were also asked questions related to parental control, drinking habits of their best friend and expectations (positive, negative) of drinking. Two binary logistic regressions were used to analyse the pupils' data: one predicting whether they had tried drinking alcohol more than 2 times (18.3 %) and the other predicting whether they had experienced the state of drunkenness (5.6 %).

Findings

Alcohol drinking of primary school pupils was significantly associated with having positive expectations of drinking ($p < 0.001$), having low negative expectations of drinking ($p = 0.031$), a best friend drinking ($p < 0.001$), being male ($p = 0.008$) as well as a low level of self-control ($p = 0.004$). Experience of drunkenness was only significantly associated to positive expectations of drinking ($p = 0.006$) and a best friend having experienced drunkenness ($p < 0.001$).

Conclusions

The study has contributed to the understanding of reasons for alcohol drinking among juveniles and confirmed the importance of peer influence in alcohol use. The results of the study may prove useful in creating and implementing prevention programmes.

Key message

- When designing preventive programmes emphasis should be placed on the real effects of alcohol use, strengthening self-control and resisting social impact

Seat-belt use among high school students in a semi-rural area of Western Turkey

Burcu Isiktekin Ataly

E Unal, BI Ataly, MF Onsuz, B Isikli, S Metintas

Public Heath Department, Eskisehir Osmangazi University, Eskisehir, Turkey

Contact: burcustkn@hotmail.com

Background

Every day hundreds of young people die in traffic accidents. A combination of physical-mental immaturity and youth-related lifestyles increase the risk of traffic accidents of young people. The lack of seat-belt use is the most determinant risky behaviour in traffic that causing deaths and injuries. Only 50% of drivers and front-seat passengers use seat-belts in traffic in Turkey. This study was planned to determine the related factors concerning seat-belt use in high school students.

Methods

The study was carried out in the Eskisehir Osmangazi University Education and Research Region, where the community based researches are studied, has four semi-rural areas and 14 high schools. A questionnaire, including questions about socio-demographic characteristics of students and Youth Risk Behaviour Surveillance prepared by Centers for Disease Control and Prevention, was applied to 1465 (57.3%) students attending to the high schools. We identified seat-belt use behaviour as dependent variable for multivariate logistic regression model.

Results

The mean age of students' was 16.0 ± 1.2 (13-22) years, 51.8% were male, 22.9% had never used seat-belt in traffic. No seat-belt use was 25.7% in males; 29.3% among unemployed father's children, 25.1% among those who also don't use helmet in traffic, 30.1% among those who had been in fight at least in school or school environment and 32.6% in smokers respectively. According to the multivariate logistic regression analyses no seat-belt use behaviour associated with being male OR (95%CI); 1.47 (1.02-2.13), having unemployed father 1.76 (1.20-2.58), lack of helmet use 1.64 (1.11-2.42), exhibiting violent behaviour at the school 1.90 (1.36-2.65) and smoking 1.50 (1.01-2.25).

Conclusion

In our study one of every four students do not use seat-belt in traffic. An effective traffic education program must be planned and enforced in all high schools to improve students' negative behaviours about the seat-belt use.

Key message

- This study is critical for increasing the seat-belt use in adolescents in traffic and preventing deaths and injuries related to traffic accidents

Computer use and body mass index among adolescents and young adults in a Danish cohort study

Johan Hviid Andersen

JH Andersen, TN Winding, K Biering
Danish Ramazzini Centre, Department of Occupational Medicine – University Research Clinic, Regional Hospital West Jutland, Herning, Denmark
Contact: joande@rm.dk

Introduction

Body weights have risen substantially among children and adolescents in affluent countries during the last three decades. Increasing global rates of obesity are broadly attributed to environments that are obesogenic e.g. access to rich amounts of high-energy food and decreased level of physical activity. Sedentary activities are considered one of the main reasons for the obesity epidemic. The purpose of this study is to evaluate the impact of computer usage time on body mass index (BMI) from the age of 14/15 to age 20/21 years.

Methods

Data were collected from three waves of questionnaires in 2004, 2007 and 2010 in a Danish birth cohort study of children born in 1989 (n = 3,054). Information on height, weight, leisure time physical activity and time spent on daily computer activities were obtained from self-reports. Information on social background of the participants (e.g. household income, parents' highest education was derived from a national register. The analysis was performed by generalized estimating equations (GEE).

Results

Inactivity e.g. more time with a computer and more time spent in front of the TV was associated with an increase in BMI. For every increasing daily hour spent with the computer the BMI increased with 0.06 kg/m2 and 0.08 after adjustment for potential confounders. Furthermore low parental education was strongly associated with increase in BMI, whereas no effect was seen of household income.

Conclusion

Time spent with a computer and a TV was associated with increasing BMI, as were low parental education. The lack of association with household income probably reflects that all Danes are generally capable of buying food supply in excess. At age 20/21 the group with lowest educated parents ended up with a mean BMI around 25, and without interventions at a society level further increase cannot be avoided.

Key messages

- Body weights are shaped through sedentary activities with a computer usage and the television
- In wealthy societies cultural factors such as education seem more important for body weight than economic factors

Nutritional status and perception of body image of workers in Southern Brazil

Aline Schneider

K Pereira Gerber[1], *A Petter Schneider*[2]
[1]Universidade Federal do Rio Grande do Sul. Curso de Nutrição, Brazil
[2]Universidade Federal do Rio Grande do Sul, Faculdade de Medicina, Departamento de Nutrição, Brazil
Contact: aline@ipgs.com.br

Background

The comparison of nutritional status and body image perception could play an important role in future programs of nutritional surveillance. This study aims to assess the relationship between nutritional status and perception of body image among workers of Porto Alegre, southern of Brazil.

Methods

In the current cross-sectional survey, 203 postmen were enrolled. Anthropometric variables including weight, height, waist and neck circumference. Body mass index was calculated. Body image perception was assessed by Figure Rating Scale developed by Stunkard (1983), adapted by Mash and Roche (1996), consisting of twelve silhouettes. The study was approved by the Federal University of Rio Grande do Sul and Institute of Porto Alegre Research Ethics Committee (protocol n°. 204 and 2010, respectively) and informed consent was obtained prior to participation.

Results

Postmen were recruited between 2011 and 2012, in city of Porto Alegre. The majority of the participants were men (74.5%), with a mean age of 41.0±11.3 years. A total of 74 (36.4%) individuals were classified as normal weight, 85 (41.9%), as overweight and 44 (21.7%), as obese. Regarding waist circumference, 115 (76.2%) men and 22 (42.3%) women were classified as adequate. In relation of neck circumference, 82.8% of men and 65.8% of women presented values greater than recommended, indicating overweight. According perception of body image, just 60 (29.6%) subjects reported current body image consistent with required body image, and 143 (70.4%) subjects were dissatisfied with their current body image. Besides, postmen satisfied with their body image have significantly lower values of body weight, BMI, waist and neck circumference when compared to those non-satisfied.

Conclusions

This study showed a high prevalence of overweight and dissatisfied with body image. Association between status nutritional and body image indicated that the postmen have a good perception of their body image.

Key message

- Body image perception and nutritional status coud play an important role in future programs of nutritional surveillance

The effect of physical activity intensity on Body Mass Index and Body Fat Percentage

Hrvoje Radašević

H Radasevic[1], *Z Sostar*[1], *S Jelusic*[1], *I Portolan Pajic*[2], *A Mestric*[1], *M Leppée*[1]
[1]Department of Public Health, Andrija Stampar Teaching Institute of Public Health, Zagreb, Croatia
[2]Zagreb City Office for Health, Zagreb, Croatia
Contact: hrvoje.radasevic@stampar.hr

Bacground

Physical activity has a number of options in regulating and maintaining proper body weight, especially prevention of obesity. Methods by which it is possible to estimate obesity are body mass index (BMI) and percent body fat (PBF). The aim of this study was to determine the impact of physical activity intensity on nutritional status in relation to BMI and PBF.

Methods

During the 2014 in the outpatient clinic of the Center for Preventive Medicine, Andrija Stampar Teaching Institute of Public Health 229 Croatian female adolescents aged 17 to 18 were examined. PBF was measured using a bioelectrical impedance scale, and BMI was calculated. Via International Physical Activity Questionnaire (IPAQ) the data on the physical activity intensity were collected. Data were divided into three categories: light physical activity (LPA), moderate physical activity (MPA) and vigorous physical activity (VPA).

Results

The total sample shows that 28.8% (N = 66) adolescents had LPA, 48.0% (N = 110) MPA and 23.2% (N = 53) VPA. Adolescents who had LPA showed higher mean values of BMI with statistically significant difference than those with MPA (p = 0.019) and VPA (p = 0.002). Mean values of PBF were also higher in adolescents with LPA activity with statistically significant difference in both MPA (p = 0,026) and VPA (p < 0,001). Among adolescents with MPA and VPA there were no statistically significant differences in the mean values of BMI but there were of PBF (p = 0,033).

Conclusions

The results indicate that moderate to vigorous physical activity intensity affects, among other, the reduction of BMI and PBF compared to female adolescents who are physically active at an insufficiently light level of intensity.

The results also support the need of public health interventions in order to promote proper moderate to vigorous level of physical activity intensity according to Health-Enhancing Physical Activity recommendations, to maintain body weight and reduce chronic diseases.

Key messages

- Proper moderate to vigorous level of physical activity intensity is important for the prevention of obesity
- There is a need for more public health intervention in order to promote proper physical activity

Y.O. Poster Displays: Health promotion

Violence is not OK! – Prevention of Violence against Children in Split - Dalmatia County, 2011–2014

Ivana Bocina

I Bočina[1], *J Glavaš*[2], *K Matešan*[3]
Public Health Institute of Split and Dalmatia County, Split, Croatia
Contact: ivana-bocina@net.hr

Background

The violence against children (VAC) is global and complex public health issue, however it is not yet recognized as public health priority with adequate political support. VAC has serious impact on child's physical and mental health, wellbeing and development. In Split and Dalmatia County (SDC) there are 23.465 primary school children, with one-half of them aged 6–10 years. Recent studies have shown significant number of school children being exposed to violence. Developing effective interventions with the aim to reduce the incidence of VAC and to provide young children with support should be priority.

Objectives

Project „Violence is not OK!" was implemented in SDC during the period 2011–2014 including almost 600 school children aged 6–10 years. The project had certain aims: to reduce the incidence of VAC in target population using multidisciplinary approach, to provide information on children's rights, to increase knowledge about violence prevention as well as to develop positive social skills. The project consisted of three creative workshops (educational, art and literary one) educating children how to acquire certain beliefs, attitudes and behaviour patterns based on non-violence.

Results

After implementing project, child-participants were able to identify the type of violence, to report the violence, to discuss about possibilities for using protection measures, to encourage and support violence victims and to resolve conflicts peacefully in class as well as at home.

Conclusions

The project „Violence is not OK!" resulting from the collaboration of Public Health Institute and primary schools of Split and Dalmatia County is a practical example of raising public awareness in order to generate positive social changes, emphasizing that any kind of VAC is unacceptable, and its prevention is public health priority.

Key messages

- Children during infancy need to acquire and develop certain beliefs, attitudes, ethical judgements and behaviour patterns based on non-violence with aim to grow up into positive and self-aware adults
- Creating culture of violence prevention should be public health priority, and the first step is to make violence-free childhood possible

Hospital infections and compliance with hygiene standards

Marta Nobile

F Auxilia[1], *S Castaldi*[1], *M Nobile*[2], *P Schulz*[3]
[1]Department of Biomedical Sciences for Health, University of Milan, Italy
[2]PhD program in Public Health, University of Milan, Italy
[3]Institute of Communication and Health (ICH), Faculty of Communication Sciences, University of Lugano, Italy
Contact: nobilemarta5@gmail.com

Background

Approximately 4 100 000 patients are estimated to acquire a healthcare-associated infection (HAI) in the EU each year. About 20–30% of HAI are considered to be preventable by intensive hygiene and control programs, however adherence with hygiene standards is still suboptimal.

The purpose of this research is to understand what are the factors affecting the decision-making process concerning the adoption of a particular behavior by health professionals.

Methods

The the Healthcare Associated Infection Knowledge (HAIK) project is composed of five studies as follows:

The first study is a cross-sectional survey to collect information on what is institutionally being done to secure a protection of patients against infections when being hospitalized. The second study is qualitative/quantitative study to understand the factors affecting the decision-making process concerning the adoption of a particular behavior. A number of physicians working in hospitals will be asked questions about their views on infection protection, their perception of colleagues' behavior, the perception of causes and motives for misconduct, Etc. The third study is a surveillance study to evaluate the incidence of HAI. The fourth study is an observational study. It is planned to observe physicians and health care personnel from different hospital wards. It is intended to cover target persons completely for complete shifts. The last study is a randomized control trial to evaluate the effectiveness of different forms of training in order to increase adherence rates to hygiene standards

Results

The study protocol was prepared, for the submission to Ethical Committee.

Conclusion

The prevention of HAI has been addressed from different points of view, but studies that have tried to validate a model of behavior are still limited. We would like to provide a better understanding of the reasons that induce health practitioners not to adopt a behavior of proven effectiveness.

Key message

- The prevention of HAI has been addressed from different points of view and a better understanding of the reasons that induce health practitioners not to adopt a behavior of proven effectiveness

Height to weight ratio, physical activity, diet of 5th year students (Faculty of Medicine, Trieste)

Giovanni Battista Modonutti

GB Modonutti, F Costantinides
Research group on Health Education, Trieste, Italy
Contact: lucaleon425@hotmail.com

A correct diet together with physical activity practised on a daily basis can improve quality of life. Professionals whose lifestyle is consistent with the 'knowledge, capabilities and behaviour' principle guarantee and facilitate the circulation of correct information and the adoption of healthier lifestyles and habits.

On these grounds in the period 2007–2011 a research study on Height and Weight (HW), Physical Activity (PA) practised and chosen diet (D) was carried out on 176 students (ST) – (M:37.5%; F:62.5%) – at the end of the 5th year of the degree course in Medicine and Surgery at the University of Trieste, population aged 22 to 37 (M:22-29 years; F:22-37 years), mean age 24.1 years (M:24.2 years; F:24.1 years; $p < 0.02$).

The data gathered show that 75.6% of ST (M:77.3%; F:74.5%) are normal-weight (NW) –BMI: 18.5- < 25Kg/m2–; 9.7% of ST (M:0.0%; F:15.5%; $p < 0.001$) are underweight (UW) – BMI: < 18.5Kg/m2 –; 9.7% (M:16.7%; F:5.5%; $p < 0.025$) are overweight (OW) –BMI: 25 – < 30Kg/m2–; while 2.3% (M:4.5%; F:0.9%) are obese (OB) –BMI: >30 Kg/m2.

65.3% of ST (M:84.8%; F:53.6%; $p < 0.0005$) practice PA 27.9 minutes a day on average (M:28.6 min./day; F:27.3 min./day), while 49.1% (M:53.0%; F:17.3%; $p < 0.0005$) practice PA > 30 min./day.

22.2% of ST (M:19.7%; F:23.6%) are 'on a diet' and 28.2% practice PA >30 min./ day (M:38.5%; F:23.1%). Further in detail: 14.3% of UW (M:0.0%; F:14.3%), 22.6% of NW (M:15.7%; F:26.8%), 17.6% of OW (M:27.3%; F:0.0%) and 75.0% of OB (M:66.7%; F: 100%) are on a diet.

17.6% of ST are on a D and practice PA. Among them, male population exceeds female population (M:19.7%; F:16.4%). The same applies to 75.0% of OB (M:66.7%; F:100%), 27.3% of OW (M:27.3%; F:0.0%), 17.3% of NW (M:15.7%; F:22.4%;) and 7.7 UW (M:0.0%; F:7.7%).

PA is practised > 30 min./day by 33.3% of OB (M:50.0%; F:0.0%) and NW (M: 50.0%; F:27.3%) on a D.

The data gathered shows that the lifestyle of future doctors is not consistent with the principles of a healthy lifestyle. Furthermore the data revealed that 1 student in 5 has an at-risk BMI.

Key messages

- The physical exercise and diet of the students enrolled in the Faculty of Medicine and Surgery of the University of Trieste proved to be poor
- Promoting health through physical exercise and diet should be a priority for the students enrolled in the Faculty of Medicine throughout their studies

Diet, physical activity and height to weight ratio of future health operators enrolled in university

Giovanni Battista Modonutti

GB Modonutti, E Tornese, L Leon
Research group on Health Education, Trieste Italy
Contact: modonuttigb@gmail.com

Diet and physical activity may pose an avoidable risk to health. In the period 2007–2013, 1672 students (M:9.7%; F:90.3%) aged 19 to 60 – mean age 22.2 years (M:22.6 years; F:22.1 years; $p < 0.02$) – enrolled in the degree courses in Psychology, Social Services and Educational Sciences and Primary Education of the University of Trieste, were asked to answer a questionnaire about their height and weight (HW), physical activity (PA) and diet followed (D).

According to the Body Mass Index (BMI) of the university students, 72.4% (M:74.4%; F: 72.2%) are normal-weight (NW) – BMI :18.5–<25Kg/m2 –, 10.6% (M:1.9%; F:11.6%; $p < 0.0005$) are underweight (UW) – BMI: < 18.5Kg/m2 –, 8.9% (M:16.7%; F:8.0%; $p < 0.0005$) are overweight (OW) – BMI:25– < 30Kg/m2– and 2.2% (M:2.5%; F:2.1%) are obese (OB) – BMI: >30 Kg/m2.

Currently, 56.2% of students (M:62.3%; F:55.6%) practice PA 27.7 minutes a day – (M:38.3 min/day; F:26.4 min/day;$p < 0.0002$) – 16.7% of them practice PA 30 min./day or even more (M:25.9%; F:15.7%; $p < 0.001$).

24.0% of university students (M:16.0%; F:27.5%; $p < 0.005$) are on a specific D, 26.0% of them practice PA > 30 min./day (M:26.9%; F:23.8%). Data show also that 7.4% of UW students (M:0.0%; F:7.6%), 26.1% of NW (M:10.7%; F:27.8%; $p < 0.005$), 44.5% of OW (M:33.3%; F:46.9%) and 66.7% of OB (M:75.0%; F:65.6%) are on a D too.

26.1% (M:12.3%; F:27.5%; $p < 0.0005$) of university students are on a D and practice PA as well as 47.4% of UW (M:0.0%; F:48.3%), 19.1% of NW (M:9.1%; F:20.2%), 35.5% of OW (M:29.6%; F:36.7%) and 52.8% of OB (M:25.03%; F:56.3%).

PA is practised > 30 min./day by 12.0% of UW (M:0.0%; F:12.2%), 6.6% of NW (M:3.3%; F:7.0%), 9.0% of OW (M:11.1%; F:8.6%) and 16.7% of OB (M:25.0%; F:15.6%; $p < 0.01$).

Despite the 'goodwill' shown by those interviewed, 1 in 4 has an at- risk HW ratio and only 1 in 6 practices PA to improve their health and quality of life.

Key messages

- Physical exercise and diet of most of the future health operators interviewed resulted inadequate
- Promoting health through physical exercise and a balanced diet should be a priority for future health operators throughout their studies

The most common causes withdrawal mothers from breastfeeding in Zagreb

Danijela Stimac

D Stimac[1], D Baric[2]
[1]Department of Health Promotion, Croatian Institute of Public Health, Zagreb, Croatia
[2]Health Centar Zagreb, Croatia
Contact: danijela.stimac@hzjz.hr

Background

Breastfeeding is important for proper growth and development of the child but also for the health of mothers. The objective of this study was to investigate the incidence and causes of the key reasons and factors leading to the decision to abandon breastfeeding mothers.

Methods

The survey involved 102 mothers from the city of Zagreb, who have given up breastfeeding in infancy period of life of their child. The data were collected and obtained via a validated questionnaire and were used in the analysis.In analyzing the frequency of breastfeeding, WHO definitions were used: 1. Exclusive breastfeeding – infants were fed only mother's milk (expressed milk included), without supplementation of water, water based drinks, fruit juices, other kinds of milk and solid or soft food; 2. Breastfeeding – infants fed with mother's milk (including supplementation with other kinds of milk, drinks, soft or solid foods). Statistical analysis of data was done using SPSS software (Statistical Package for the Social Sciences, SPSS Inc, Chicago, IL, USA version10 for Windows). For category data and testing the difference in proportions Hi-square-test was used. Calculated p – values were considered statistically significant if $p < 0.05$.

Results

The results of this study suggest that social indicators (monthly household income $p = 0,014$, and occupation $p = 0,44$) and previous experience of breastfeeding $p = 0,33$, significantly associated with duration of breastfeeding and that is the most important reason for the cessation of breastfeeding mothers who are defined in this study, their opinion that they did not have enough milk or that it was not good enough.

Conclusions

Although the programs for protection, promotion and support of breastfeeding in Croatia are

being actively conducted, the rate of breastfeeding, as a quality indicator for these programs,

is still not satisfactory, which was also shown by this study.

Key messages

- There is significant correlation between social indicators with the /duration of breastfeeding
- Breastfeeding should be adjusted, as much as possible, to daily life and obligations of a woman in today's modern society

Diabetes and Health Literacy: the DHELY project

Marta Nobile

P Schulz[1], M Nobile[2], O Disoteo[3], F Auxilia[4]
[1]Institute of Communication and Health (ICH), Faculty of Communication Sciences University of Lugano, Italy
[2]PhD program in Public Health, University of Milan, Italy
[3]Unit of Diabetology Hospital Niguarda Ca' Granda Milan, Italy
[4]Department of Biomedical Sciences for Health, University of Milan, Italy
Contact: nobilemarta5@gmail.com

Background

Health Literacy (HL) is defined as the degree to which individuals have the skills to obtain, understand and use basic pieces of health information, which are necessary to take suitable health decisions.Several studies have analysed the correlation between HL level and glycated hemoglobin (HbA1c) has been examined. No unanimous results have been reached in the relevant literature.

The aim DHELY project is to develop a greater understanding of the impact of HL on decisional processes regarding health and health outcomes.

Method

We conduct a Cross sectional study. Data for this study come from a self-administered survey of 200 diabetes patients conducted between January to June 2014. The questionnaire was developed in English and translated into Italian, using the translation/back-translation method. A pre-test was conducted in December 2013 employing the think aloud technique. Functional health literacy was measured by four self-report items modified from Chew et al. We used also Newest Vital Sign (NVS) and Short Test of Functional Health Literacy in Adults (S-TOFHLA. We used items developed by Toobert to measure the self-management behavior.

Results

The final sample consists of 183 diabetes patients. Correlation analysis was chosen to assess the similarity of health literacy measures and the bivariate relationship between dependent and independent variables. Logistic stepwise regression was used to assess the influence of health literacy on health behaviors net of other predictor variables. All three health literacy measures were positively and significantly correlated. For relationship between health literacy and health behaviors we obtained not clear results.

Conclusion

Our general expectation is that the measures of health literacy correlate and that they are significant predictors of health behaviors in diabetes patients. We obtained results that deserve to be explored with further studies

Key message

- The interest in HL in the healthcare frame has been constantly growing, since it has been proved by several studies that low HL levels are related to bad health outcome.

Alcohol (ab)use in the student population of Novi Sad and preventive measures

Vladana Stefanovic

V Dickov, V Stefanovic, L Turo, A Marinkov
Institute for Student Health Care Novi Sad, Novi Sad, Serbia
Contact: vladana.s@live.com

Aim

The aim of our study was to find out the current alcohol use trend among the first and third year students attending the University of Novi Sad which has as many as 65000 students currently studying. Basically all students are affected by the effects of student drinking – whether they drink or not. The problem is not just the drinking itself, but the negative consequences of drinking that result in a variety of risky behaviors.

Methods

This research was conducted among students of the University of Novi Sad in the period from October 2013 until February 2014. In our prospective study we gathered information using an uniquely designed questionnaire. 550 students have participated in the study, 305 were first year students of which 142 (46.56%) were males and 163 (53.44%) females; and 245 third year students of which 108 (44.08%) males and 137 (55.92) females. Data was analysed with the SPSS statistical package (20.0 Version).

Results

Alcoholic beverages in general were consumed by 75.1% of first year students, 73% among the male students and 77.5% of female students. Among the third year students, 78.8% of students consumed alcohol, 84.3% of male students and 74.5% of female students. Alcoholic drinks were consumed on a weekly basis by 9.4% of first year students and 9.4% of third year students. On a monthly basis 65.5% of first year students consumed alcohol and 68.6% of second year students.

Conclusion

The results of our study show almost equal numbers of female and male students that consume alcohol which is a new trend in our society. The results also indicate the need for an increase of preventive activities such as pro-social bonding, teaching 'life' skills (refusal, negotiation, and decision-making) and provide caring and support for young highly educated people that are our future.

Key messages

- almost eaqual numbers of female and male students consume alcohol
- need for an increase of preventive activities such as pro-social bonding, teaching 'life' skills, providing caring and support

Evaluation of air pollution genotoxic effects in children by the buccal micronucleus cytome assay

Sara Levorato

S Levorato[1,8], S Vannini[1], E Ceretti[2], T Salvatori[1], E Carraro[3], C Fatigoni[1], M Verani[4], M Moretti[1], MA De Donno[5], S Monarca[1], S Bonizzoni[6], A Bonetti[7], U Gelatti[2], MAPEC_LIFE Study Group
[1]Department of Pharmaceutical Sciences, University of Perugia, Perugia, Italy
[2]Department of Medical and Surgical Specialties, Radiological Sciences and Public Health, University of Brescia, Brescia, Italy
[3]Department of Public and Pediatric Health Sciences, University of Torino, Torino, Italy
[4]Department of Biology, University of Pisa, Pisa, Italy
[5]Department of Biological and Environmental Science and Technology, University of Salento, Lecce, Italy
[6]Comune di Brescia, Brescia, Italy
[7]Centro Servizi Multisettoriale e Tecnologico – CSMT Gestione S.c.a.r.l., Brescia, Italy
[8]School of Advanced Studies, University of Camerino, Camerino, Italy
Contact: sara.levorato@unipg.it

Background

Epidemiological studies have found a consistent association between exposure to air pollution, especially to particulate matter (PM), and the incidence and mortality for several chronic diseases such as lung cancer, cardiovascular diseases and diabetes. Among the mechanisms responsible for these adverse effects, genotoxic damage is of particular concern. Children are a high risk group with respect to the short- and long-term effects of air pollution. Indeed recent data suggest that genetic damage occurring early in childhood can increase the risk of chronic diseases, including cancer, in adulthood. In the MAPEC (Monitoring Air Pollution Effects on Children for supporting public health policy) study, early biological effects of air pollution are evaluated in children by the buccal micronucleus cytome assay.

Methods

The micronucleus cytome assay was performed in exfoliated buccal mucosa (BM) cells of 6–8-year-old children from five Italian towns (Brescia, Torino, Pisa, Perugia and Lecce) characterized by different concentrations of air polluntants. About 1,000 children were recruited in the study and BM cells were collected using a small-headed toothbrush. The cells were fixed on microscope slides and stained with Feulgen/LightGreen for both bright field and fluorescence microscopic analysis.

Results. BM cells were gathered as: basal cells, normal differentiated cells, apoptotic/necrotic cells (i.e. condensed chromatin, karyorrhectic, pyknotic, fragmented nucleus and karyolitic), binucleated cells. The biomarkers of genome damage (i.e. micronuclei and nuclear buds) were evaluated only in normal differentiated cells. Microscope analysis of cells sampled on winter 2014 is still ongoing. Preliminary data will be presented at the conference.

Conclusions

The main objective of the MAPEC study is to evaluate the associations in children between air pollutants and early biological effects, and to propose a model for estimating the global genotoxic risk.

Key message

- The aim of the MAPEC study is to evaluate the associations between air pollution and biomarkers of early biological effects in children, and to propose a model to estimate the global genotoxic risk

Community capacity building on the social determinants of health: a local initiative in France

Fabienne Azzedine

F Azzedine[1,2], *C You*[1,2], *M Porcherie*[1,2], *E Breton*[1,2]
[1]EHESP–French School of public health, Rennes, France
[2]CRAPE UMR/CNRS 6051, Université Rennes, Rennes, France
Contact: fabienne.azzedine@ehesp.fr

Reducing social health inequalities is a major challenge and requires intervening on the social determinants of health and a better repartition of power and wealth. Those requirements highlight the importance of community capacity building. Although the public health literature features a number of contributions on the conceptualization of community capacity building, we found few studies on strategies to reinforce them.

In this presentation we report on an initiative aiming at reinforcing community capacity building for equity in health. This study is a part of an intervention research project in France (2012-2015). "Ensemble la santé pour tous en Pays de Redon-Bretagne Sud" is based on the construction and facilitation of an intersectoral committee including local elected officials, professionals and civil society members. We conceptualized community capacity building according to nine comprehensive domains (Liberato, 2004): sense of community, leadership, partnership/linkages/networking, communication, participatory decision making, development pathway, assets-based approach, resources mobilization, learning opportunities and skills development. Data collection was carried out through 3 focus groups to which members of the committee were invited to attend (n = 12). We conducted a qualitative content analysis.

The analysis of the nine comprehensive domains reveals that after 2 years of existence the committee is building its capacity. The intervention does not seem to have had impacts on participatory decision making, resources mobilization or learning opportunities, but it seems to have developed the sense of community (especially in building aims), and the leadership (the necessity of committee's coordination).

Capacity building is a lengthy process. It seems to start by developing the sense of community and the leadership. Reinforcing community capacity building involves reconciling the aspirations of individuals, organisations and those of community.

Key message

- Maintaining mobilization and reinforcing community capacity building requires taking into account not just the aspirations of community but also those of organisations and individuals

Disability and quality of life at work: an exploratory research in the French public sector

Marie-Renée Guevel

M Guével[1,2], *M Codina*[1], *J Pommier*[1,2], *R Joanny*[3]
[1]Département des Sciences humaines, sociales et comportements de santé, EHESP, Rennes, France
[2]UMR CRAPE Centre de Recherches sur l'Action Politique en Europe – 6051, Rennes, France
[3]Instance Régionale d'Education et de Promotion de la santé de Bretagne, Rennes, France
Contact: marie-renee.guevel@ehesp.fr

Over the last years, the issues of health at work have become a major concern for public authorities, social partners and employers. Workplace health promotion should be considered as a strategic objective for employers. Although this reflection has emerged several years ago, it remains quite new for workers with disabilities. The objectives of this research project are to identify the determinants of the quality of life at work for persons with disabilities and to explore employers' strategies to take them into account in the process of retaining workers with disabilities at work.

A working group was set up in March 2015 to support the research process. It involves stakeholders interested by quality of life at work's and disability's issues (public employers, social partners, non-governmental organizations, occupational doctors and persons with disabilities). The exploratory design of the study has been discussed with the working group. Two local public authorities from Brittany, France were approached to take part to the study. In each site, the perspectives of different key informants are explored through in-depth interviews.

Based on a literature review and on the working group's inputs, determinants linked to the work itself, the social and the working environment and the employer's strategy have been identified. Most of these determinants are common to all workers but seem to be more crucial for workers with disabilities. These elements have guided the preparation of the data collection from the two local authorities involved. The data collection started in May 2015. A thematic analysis framework will be used.

The results of this research should bring a better comprehension both of the strategies implemented and of the challenges. It should help identifying needs for future workplace health promotion interventions. Involving key regional stakeholders in the research process should strengthen the relevance and the transfer of the knowledge developed.

Key messages

- This research should help to better understand how the employers take into account the determinants of the quality of life at work in the process of retaining workers with disabilities at work
- This research should help strengthen workplace health promotion interventions for workers with disabilities and for all workers by focusing on the determinants of the quality of life at work

Management of facial trauma with tooth avulsion in children and adolescent, investigation on knowledge of parents and teachers

Letizia Tiano

L Tiano[1], *S Barbieri*[2], *FA Avato*[1], *M Bergamini*[2], *RM Gaudio*[1]
[1]sezione di medicina legale, Dipartimento di Medicina Clinica e Sperimentale
[2]sezione di igiene e medicina preventiva, Università degli Studi di Ferrara
Contact: tniltz@unife.it

Background and Goal of Study

In the event of facial trauma with tooth avulsion, common occurence in children and adolescent, correct management investigation of injuried site and of dental element is mandatory for future prognosis and to reduce psycological and phisical conseguences.

Methods

In order to size up the knowledge about trauma managment we interviewed 150 parents and teachers of kids of age between 6 and 14 years. There was proposed a questionnaire about: management of tooth and traumatized site urgency of professional intervention. From this analysis emerge a partial or wrong kwolwledge of basical procedure in case of trauma in 75% of interviewed.

Results and Discussion

Rempiantation of tooth, possible only if It's keep in proper way, avoids procedure of tooth implanto-prostetic soistitution (about 1500–2000 euro). Moreover, the implant can be placed only at the end of facial grow (about 18–20years), so, until this age, a prostetic sobstitution in needed for aestetic.(for example Maryland bridge, about 1000 euro).

Conclusions

In most of cases the alveolar bone, necessary for implant, decrease with years if the tooth is not present, so you often need surgical bone remplantation (about 1500–2000 euro). We belive that an appropriate training is essential considering elevate frequency of this kind of trauma and easy way to reduce biological, psycological and economical conseguences of tooth loss school-age.

Key message

- appropriate training is essential considering elevate frequency of this kind of trauma and easy way to reduce biological, psycological and economical conseguences of tooth loss school-age

The Perceptions of Adults on Cigarette Sales to Minors

Hilal Ozcebe

H Ozcebe[1], *N Bilir*[1], *E İnal*[2], *E Beşer*[3], *G Çan*[4], *EDE Kiraz*[3], *P Okyay*[3], *D Arslantaş*[5], *F Ergin*[6], *V Şenol*[7], *E Turhan*[8], *Ş Gökgöz*[9], *EO Çalıkoğlu*[10]
[1]University of Hacettepe Institute of Public Health, Turkey
[2]University of Adnan Menderes Faculty of Medicine Dept. of Public Health, Turkey
[3]University of Karadeniz Teknik Faculty of Medicine Dept. of Public Health, Turkey
[4]University of Karadeniz Teknik Faculty of Medicine Dept. of Public Health
[5]MD, University of Osman Gazi Faculty of Medicine Dept. of Public Health, Turkey
[6]University of Adnan Menderes Faculty of Medicine Dept. of Public Health, Turkey
[7]University of Erciyes Faculty of Medicine Dept. of Public Health, Turkey
[8]Provincial Directorate of Public Health, İzmir, Turkey
[9]University of Kırlareli, Vocational School of Health, Turkey
[10]AssiUniversity of Atatürk Faculty Medicine Dept. of Public Health, Turkey
Contact: hilalozcebe@gmail.com

Backgroud

The prevalence of tobacco use has decreasing in Turkey in the last years. One of the interventions is prohibiting the selling of tobacco products to minors. Based on GYTS results, tobacco use among the children is still high. The community should have an important role to control tobacco sales to minors at markets. The aim of this study is to learn the knowledge and perceptions of adults on cigarette sales to minors.

Methods

This descriptive study was conducted in nine city centers of the country aiming at learning the opinions of the adults on sale of tobacco to minors. The data were collected through a face-to-face questionnaire. The main city center was determined by the research team member from the same city. It is aimed to reach 400 people, and the total number of people reached was 3241. Ethical approval was taken from University of Hacettepe Ethical Committee, and study was founded from Scientific Research Projects Coordination Unit.

Results

From the participants, 59.8% of them graduated from high school or university, and 65.9% of their working status was "working". The adults think that 6 or 7 out of 10 high school students and 2 or 3 out of 10 secondary school students were smokers. 43.3 % of participants said the children can buy cigarette from grocery/markets, and 11.1% of them from street vendors, and the others from families and friends. 62.4 of the participants believed that the children can reach cigarettes very easily, 21.9% of them do not know the Law does not have any regulation and almost 41% believed the implementation of the Law was not so effective in this regard. 57.1% of participants witnessed cigarette sales to minors and 87% of sales clerk did not ask any ID card and sold the cigarettes. 63.7% of the participants declared that they did not make any warning.

Conclusions

The awareness of the adults in important to for more effective implementation of tobacco control measures regarding banning of tobacco sales to children. The adults should be encouraged to warn the sellers in case of selling tobacco to minors.

Key messages

- Community participation of national tobacco control program should be strengthen to decrease tobacco use in the community
- Adults should be encouraged to feel responsibility to control tobacco sales to minors at shops

Sense of Coherence, Assets and Skills for Life: A Sociocultural Centre as a Salutogenic Strategy

Gemma Olle

P Batlle[1], *D Juvinyà*[2], *C Bertran*[2]
[1]Dipsalut, Public Health Agency within the regional government of the Diputació de Girona, Girona, Spain
[2]Chair of Health Promotion within the University of Girona, Girona, Spain
Contact: amorales@dipsalut.cat

Background

The salutogenic theory aims to base health promotion on a new way of explaining health. The salutogenic approach revolves around two main concepts: Sense of Coherence (SOC) Generalised Resistance Resources (GRR), and it is in line with the Assets approach.

The World Health Organization (WHO) puts forward the development of personal skills as one of the strategies of health promotion. Non-formal education is an excellent opportunity to promote them because young people are motivated and attend of their own volition.

SOC and Skills for Life are connected with the health of people and especially with healthy lifestyles in a positive manner.

Methods

The aim was both to explore and develop a strategy to incorporate Skills for Life, SOC, GRR and Health Assets in a sociocultural centre for young people and young people at risk of exclusion. Combined qualitative study: Participatory action research (PAR) and explorative-interpretative study. Triangulation methodology of results was used in order to obtain a more solid research: analysis of documents, semi-structured interviews, participant observation, participatory action research.

Results

According to the data, sufficient evidence was found to prove that at the sociocultural centre the young people put Skills for

Life, SOC and GRR into practice. Through PAR the elements remaining were finally incorporated. The young people stated that their experience was meaningful and it contributed with elements of personal growth regarding the spheres studied (Skills for Life, SOC and GRR), as well as claiming that they were able to transfer some of them to their daily lives.

Conclusions

In accordance with the characteristics of the project, it would be reasonable to hypothesise that there is a contribution towards the development of SOC because it helps to create favourable environments, provides a place of accompaniment among equals as well as a place of accompaniment by adult figures.

Key messages

- The results obtained through this research are consistent with the evidence available
- According to the data, sufficient evidence was found to prove that at the sociocultural centre, young people put Skills for Life, SOC and GRR into practice

Assessment of dietary quality among postmen that work in Porto Alegre, Brazil

Aline Schneider

M Zandavalli[1], K Santos[1], F Silva[1], A Petter Schneider[1,2]
[1]Universidade Federal do Rio Grande do Sul. Curso de Nutrição, Brasil
[2]Faculdade de Medicina. Departamento de Nutrição, Brasil
Contact: aline@ipgs.com.br

Background

The analysis of dietary quality is important to establish the nutritional composition and to verify if diets are adequate. This study aims to evaluate the diet quality among postmen in city of Porto Alegre.

Methods

This was a cross-sectional study enrolled postmen. Postmen were evaluated regarding sociodemographic and nutritional habits. The data were collected from August, 2011 to December, 2012, in six centers of Distribution of Post. Dietary intake was evaluated by Telephone-Based Surveillance of Risk and Protective Factors for Chronic Diseases questionnaire and two 24-hour dietary recall. The diet quality was evaluated by Healthy Eating Index, adapted for Brazilian population. Thus, the diet was classified as good quality (more than 100 points), diet needs improvements (from 71 to 100 points) and poor quality (less than 71 points). The study was approved by the Federal University of Rio Grande do Sul and Institute of Porto Alegre Research Ethics Committee (protocol n°. 204 and 2010, respectively) and informed consent was obtained prior to participation.

Results

A total of 204 postmen were evaluated to participate in the study. Of these, 10 postmen were excluded because they decline to participate in this study. The mean age of the 194 postmen was 40.3±11.2 years, and 147 (75.8%) were men. According Healthy Eating Index, the mean of quality diet was 80.1 ± 11.4 points, and the diet of 9 (4.6%) subjects was classified as good, of 143 (73.7%), needed improvements, and of 42 (21.6%), was poor. Mean nutritional intake was 2367.5 ± 573.7 calories, 18.4 ± 4.3% protein, 52.9 ± 7.0% carbohydrate, 28.5 ± 5.5% fatty acids, 9.7 ± 2.6 g saturated fat and 376.2 ± 176.3 mg cholesterol.

Conclusions

The most postmen diet was classified as needs improvements or poor quality. This sample is included in risk group to develop non-communicable chronic disease. Thus, dietetic intervention as nutritional education is necessary to this population.

Key message

- Diet quality is important to evaluate the development non-communicable chronic disease

Call to a Healthy Lifestyle: A 2013 Interventional Study in Ankara, Turkey

Muhammed Jaiteh

LH Özcebe[1], N Bilir[1], R Güven[2], M Sakallı[2], A Şentürk[2], MB Jaiteh[1]
[1]Institute of Public Health, Hacettepe University, Ankara, Turkey
[2]Ministry of Labor, Ankara, Republic of Turkey
Contact: muhammed.jaiteh@yahoo.com

Background

The ''Call to a Healthy Lifestyle'' study was initiated in 2013 as part of a bilateral agreement signed between the Institute of Public Health of Hacettepe University and the Ministry of Labor of the Republic of Turkey. It aims at promoting a healthy lifestyle among the staff of the Ministry and creating a ''model'' for other institutions to emulate.

Methods

This is a cross-sectional study that was designed to take place in two phases. The first phase is a survey using a questionnaire to assess socio-demographic factors, distribution pattern of non-communicable diseases (NCD's) and lifestyle factors such as smoking and obesity. After the survey, all the participants were examined by the workplace physician who performed physical examination and laboratory tests. An intervention program directed towards preventing NCD's and promoting healthy lifestyle was launched, notably, a series of relevant conferences and health education strategies including e-mail messages, brochures, posters and personal counselling. The second phase of the study is ongoing and involves re-examination of those found to have certain health conditions such as diabetes mellitus (DM) and hypertension; and/or having associated risk factors to assess the impact of the intervention.

Results

Only the results of the first phase are presented in this paper. In total, 1339 participants were included in the study, 790 (59%) of which were males. A high prevalence of smoking was noted with 33% of males and 28.6% of females resporting as being daily smokers. Two-thirds (67,7%) of 867 subjects were overweight and/or obese and 8.3% (73/880) had elevated systolic and/or diastolic BP. Among all 1339 respondents, prior diagnosis of DM and cardiovascular disease was reported by 6.3% and 5.8% repectively.

Conclusions

This study revealed a high prevalence of NCD risk factors among the staff of the Ministry particularly smoking and overweight. Interventions and awareness campains should be implemented and other departments encouraged to follow suit.

Key messages

- Phase 1 of this study revealed a high prevalence of certain risk factors for NCDs among the Ministry staff
- Public health interventions would play an important role in eliminating such risks and promoting healthy lifestyle

Treatment-related experiences and preferences of patients with bronchial carcinoma

Ines Aumann

I Aumann, K Kreis, K Damm, JM Graf von der Schulenburg
Leibniz University of Hanover, Center for Health Economics Research Hannover (CHERH, Hannover, Germany
Contact: ia@cherh.de

Background

Bronchial carcinoma is one of the most common tumor localizations. The disease is very challenging for the patients and can cause physical complaints and may have a strong influence on the patients' family lives. Thus, there is need to optimize the treatment paths and patterns with respect to patients‘ needs and preferences. Chemotherapy is the most frequent treatment option. The aim of this study is to gain insight into the treatment-related experiences and preferences of patients with bronchial carcinoma to derive concrete measures for improving patients care.

Methods

The study employs a qualitative research design with guideline-based interviews. 19 patients with bronchial carcinoma were being interviewed between June and July 2013. The sample is heterogeneous regarding age, sex, burden and type of disease and therapies. Interviews were recorded, transcribed and analyzed using qualitative content analysis.

Results

The interviews are very informative in understanding the patients' therapy experiences and to find out preferences concerning the improvement of the treatment. Two main aspects with subthemes could be identified during the interviews. One aspect focused on the organizational context like the process during the treatment day or the experiences with different stakeholders (health insurance or physicians). The other category referred on experiences that influence the psychosocial factors (physical and mental experiences). Improvements should be made in the following areas: waiting time, information for side effects, information about changing physicians.

Conclusion

Patients report a wide range of therapy experiences and have different preferences. Nevertheless, the study provides a couple of hints for improving care and design therapy patterns in line with patients' preferences. In sum, this study shows that with small changes, which are not very time consuming or costly, the treatment of lung cancer patients can be improved

Key messages

- Chemotherapy causes a high burden to the patient with bronchial carcinoma in everyday life
- The integration of the patients' experiences and preferences could help to improve the treatment and therefore improve the satisfaction of the patients

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Injury Related Deaths in Split and Dalmatia County, 2003–2012

Ivana Bocina

I Bočina[1], *I Tripković*[2], *J Ninčević*[3]
Public Health Institute of Split and Dalmatia County, Split, Croatia
Contact: ivana-bocina@net.hr

Background

Injury related deaths (IRDs) are significant public health issue of today, representing only tip of the iceberg of potential injury outcomes. IRDs are of central importance to public health since they are largely preventable. Our study based on population mortality data tried to identify major causes of IRDs and the most vulnerable populations with aim to create specific injury prevention programmes at regional level.

Methods

The research design study comprised a cross-sectional study of injury mortality among the population of residents (total of 454 748 population, Census 2011) in Split and Dalmatia County (SDC) in period 2003–2012. Total of death certificates data provided by the Croatian Bureau of Statistics for SDC population were reviewed. The causes od death were based on the International Classification of Diseases, 10th revison (ICD-10). The study used total number of IRDs and overall and cause-specific mortality rates cross – classified by age, gender and specific cause of injury.

Results

Injuries were the 3rd leading cause of death, accounting for 5–6% of all deaths during the observed period. Males and people aged 65 and older consistly sustained higher rates of IRDs. The results showed the main causees of IRDs, varying by age and gender. Falls were the leading cause of IRDs in woman aged 65 and older, transport accidents were dominant in young males and intentional self-harm prevailed among males aged 34–54 years.

Conclusions

There are no developed injury prevention public health programmes in SDC yet, but our study results can be used as base for developing specific and comprehensive injury prevention programmes at regional level. Introducing trauma registry for SDC may also improve quality of injury prevention programmes.

Key messages

- Identifying specific causes of injuries in vulnerable populations presents major factors for reducing IRDs and establishing injury prevention programmes
- Developing effective preventive interventions and strategies in dealing with injuries is public health priority

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PartKommPlus – German Research Consortium for Healthy Communities

Michael T Wright

MT Wright[1,2], *S Hartung*[1,2], *T Altgeld*[3], *G Bär*[4], *T Borde*[4], *C Böhme*[5], *R Burtscher*[1,2], *S Jordan*[8], *S Kümpers*[6], *S Pospiech*[7], *C Santos-Hövener*[8], *P Wihofszky*[9]
[1]Catholic University of Applied Sciences Berlin, Germany
[2]Institute for Social Health, Berlin, Germany
[3]Association for Health Promotion Lower Saxony, Germany
[4]Alice Salomon University of Applied Sciences, Germany
[5]German Institute of Urban Studies, Germany
[6]Fulda University of Applied Sciences, Germany
[7]Association for Health Promotion Berlin-Brandenburg, Germany
[8]Robert Koch Institute, Germany
[9]University of Flensburg, Germany
Contact: michael.wright@khsb-berlin.de

Background

Promoting the population's health is a central political goal of both the European Union and the Federal Republic of Germany. Integrated municipal strategies for health promotion (IMS) are an important means for reaching this goal. ''Integrated'' means that stakeholders at the local level work together in order to coordinate their various activities and services in the interest of the public's health through the entire life span.

The new German research consortium PartKommPlus is investigating over the next three years the factors determining successful implementation and maintenance of IMS. The consortium is funded by the Federal Ministry for Education and Research within the program Prevention Research. PartKommPlus is a project of the German Network for Participatory Health Research (PartNet) and supported by the International Collaboration for Participatory Health Research (ICPHR).

Methods

The research consortium is basing its work on the Participatory Health Research approach. The goal and defining principle of PHR ''is to maximize the participation of those whose life or work is the subject of the research in all stages of the research process''. Thus the work will be conducted as a partnership between academic researchers, practitioners, vulnerable communities, and stakeholders. Five subprojects in the states of Berlin, Brandenburg, Hamburg, Hesse, Lower Saxony, and Baden-Wuerttemberg are taking part in the research project which includes a total of eight case studies.

Results

Over the three years new knowledge on the process of IMS will be generated and the science of Participatory Health Research (PHR) will be strengthened within the context of health promotion practice and research in Germany.

Conclusions

The structure and goals of the consortium will be presented.

Key messages

- The new German research consortium PartKommPlus is investigating the factors determining successful strategies for health in all policies at the municipal level
- The research consortium PartKommPlus is basing its work on the Participatory Health Research approach and includes a total of eight case studies in six different regions in Germany

How can we start to implement community-based health promotion in rural areas?

Sigrid Mairhofer

S Mairhofer, M Vieider
Free University of Bozen - Bolzano, Italy
Department for Health Promotion & Sports; Autonomous Province of Bolzano, Italy
Contact: sigrid.mairhofer@unibz.it

Like in many other regions the concept of health promotion is hardly implemented in South Tyrol (an intercultural autonomous province in northern Italy). Until 2005 there was no organization for Health Promotion and the whole topic seemed to be totally unknown in Social and Health Policy and also by Social and Health Professionals.

In 2005 the Province of Bolzano founded a Non-Profit-Organization for Health Promotion. One of the main work-fields was community-based health promotion, implemented in the 5-year-projects ''healthy villages''. In 2014 the public policy department for sports was extended and has taken on responsibility the tasks from the previous foundation, so that it is now called department for health promotion and sports.

The presentation gives an overview about the program healthy villages, with a special focus on the creative methods used for participative data collection and analysis about health -risks, -assets and –needs within rural villages in this region. It will be discussed how can be worked in different settings in a participative way with citizens and how it is possible to elaborate health promotion programmes together.

This participative work-procedure led to a high acceptance of the whole project and encouraged citizens to participate. During the last years the population, policy makers and social and health professionals started to understand the concept of health promotion, although this process of sensitizing will need much more time.

There is a lot of research and practice about community-based health promotion in rural areas, in communities within big cities, but as there is still missing research and practice experience in rural villages, the projects can give an important overview about how regions with no experience with health promotion can start to work. Participants will hear and can discuss about our positive and negative ''lessons learnt''.

Key message

- Community-based health promotion is a powerful approach especially for rural regions and reaches citizens in their everyday settings

Factors affecting vaccination choice among childbearing age women in Italy

Silvia Rota

S Rota[1], F Laviola[2], MC Bonazzi[1]
[1]Department of Health Sciences, University of Milano Bicocca, Italy
[2]Local Health Agency of Milan, Italy
Contact: s.rota20@campus.unimib.it

Background

Although the introduction of measles and rubella elimination plan, in the WHO European region the infective risk for childbearing age women is still high. In our study, we evaluate knowledge attitude and behavior about vaccine preventable diseases in a group of new mothers and General Practitioners.

Methods

The mothers were interviewed during the vaccination appointment of their child in April-July 2014 at the 6th district of Local Health Agency of Milan. Telephone interviews were used for collecting data from the General Practitioners of the same district in August-September 2014.

Results

The study included 194 women (124 born in Italy and 70 immigrants) and 28 General Practitioners. Both groups relied on vaccinations even if they presented several terms. An high socio-economic level was related with more doubts or fear against vaccination in women. About 20% of Italian women would not vaccinate their child against measles. The knowledge about vaccination and infective risk for women of reproductive age was poor and among immigrants even less. More than 5% were not protected against rubella (objective of the elimination plan) and the risk was higher among foreign women. The physicians showed an incomplete knowledge of this theme and a non-optimal attitude, in particular they did not consider measles and varicella risk.

Conclusions

A collective effort to achieve the elimination goal for measles and rubella should be implemented. It is essential to organize informative campaigns to enhance the knowledge and bring attention to this theme. A focused strategy for childbearing age women is needed, in particular for the foreign ones. General Practitioners should be better integrated in the vaccination plan as first connection with the patient and, among them, the reporting of cases should be encouraged and promoted.

Key message

- Women of reproductive age and general practitioners are very important target groups for strategies to gain knowledge in order to decrease vaccine preventable diseases

Key message

- importance of nutrition education to pregnant females

Physical activity in older adults in rural area of Cundinamarca, Colombia

Rosmary Martinez

R Martinez-Rueda[1], A Angarita[2], L Alba-P[1], A Torres[1], F Prieto[1], V Puzovic[3]
[1]Universidad Manuela Beltrán, Bogotá, Colombia
[2]Universidad Santo Tomás, Bucaramanga, Colombia
[3]University of Kragujevac, Kragujevac, Serbia
Contact: rosmaru78@hotmail.com

Background

In Colombia there is a lack of knowledge related to rural population lifestyles, including physical activity. The purpose of this study is to know about the practice of physical activity in older adults in rural population and identify the main barriers for its practice.

Methods

Cross-sectional study with a convenience sample of elderly people in rural Cundinamarca, Colombia. The practice of physical activity was measured through the GPAQ questionnaire. Further questions were asked to identify barriers for physical activity practice, based on the categories of San Diego Health Survey and Exercise Guide ''Colombia Activa y Saludable''. Simple binomial and multiple regression analysis to calculate prevalence ratios were performed.

Results

267 subjects over 60 years were evaluated, which 75% (n = 199) were Female; 68% (n = 182) had primary as a maximum level of schooling. It was found that 81% (n = 216) of the population follow the weekly physical activity recommended practice, without significant differences by gender or education level. The multivariate analysis evinces two barriers associated with the practice of physical activity: ''fear of hurting'' (PR = 0.86 95% CI 0.76 to 0.96) and ''no company'' (PR = 0.85 95% CI 0.74–0.98).

Conclusion

Strategies aimed to promote the perception of safety as well as support networks for the practice of physical activity should be developed for this population.

Key messages

- Rural environments favor the practice of physical activity in older adults in Cundinamarca and do not show gender differences in the practice of physical activity
- The perceptions of barriers are related to ageing issues like isolation and risk of injury and falls

Natural environments and physical activity: Exploring the mediation effect of nature related beliefs

Giovanna Calogiuri

G Calogiuri
Department of Dental Care and Public Health, Faculty of Public Health, Hedmark University College, Norway
Contact: giovanna.calogiuri@hihm.no

Studies show that access to natural environments (NE) is associated with higher levels of physical activity (PA). Findings are, however, ambiguous. Furthermore, very few cross-sectional studies have investigated cognitive and motivational processes that might influence the NE-PA relationship. The aim of this study was to investigate whether perceived access to NE predicts PA in adult Norwegians, and to establish to what extent nature-related beliefs mediate the relation.

The data were derived from a survey initiated by Norsk Friluftsliv. Stratified random sampling was used to recruit 2168 adults (18+ years) from all over Norway. Participants reported socio-demographic information, PA behaviours, access to NE and nature-related beliefs. Principal component analysis was used to reduce the number of beliefs. Logistic regression was used to model the relationship between access to NE and walking/exercising in NE for at least 150 minutes/week, controlling for socio-demographic variables and nature-related beliefs. Aroian test was used to establish the magnitude of possible mediation effects.

Walking/exercising in NE for at least 150 minutes/week was associated with older age, higher income, family status and region of residence. After controlling for socio-demographics, ‘self-reported proximity to any NE’ was not associated with PA. On the other hand, ‘perceived access to PA-supportive NE’ significantly predicted walking/exercising in NE for at least 150 min/week (OR = 1.54, 95%CI = 1.31-1.80). However, when the nature-related beliefs ‘Feelings about nature’ and ‘Social network’ were included, the NE-PA relationship decreased. A significant mediation effect was found for both beliefs (Aroian test = 9.03 and 7.37, respectively; $p < 0.001$ for both).

Access to PA-supportive NE (and not simply the proximity to any NE) can help people meet the minimum recommended levels for weekly PA. However, not only is access to PA-supportive NE required; promoting positive feelings towards nature alongside creating opportunities to be active with others are also necessary.

Key messages

- Access to natural environments that are perceived as physical-activity-supportive (and not simply the proximity to any natural environment) can help people meet physical activity recommendations
- Not only is access to quality natural environments required; promoting positive feelings towards nature alongside creating opportunities to be active with others are also necessary

Y.P. Poster Displays: Health services and systems research

Effectiveness of care integration strategies in health systems of Latin America: EQUITY-LA II study

Ingrid Vargas Lorenzo

ML Vázquez[1], *I Vargas*[1], *JP Unger*[2], *P De Paepe*[2], *AS Mogollón-Pérez*[3], *I Samico*[4], *P Cavalcanti*[5], *P Eguiguren*[6], *AI Cisneros*[7], *M Rovere*[8], *F Bertolotto*[9]
[1]Health Policy and Health Services Research Group, Consortium for Health Care and Social Services of Catalonia, Barcelona, Spain
[2]Department of Public Health, Public Sector Care Unit, Prince Leopold Institute of Tropical Medicine, Antwerp, Belgium
[3]Escuela de Medicina y Ciencias de la Salud, Universidad del Rosario, Bogota, Colombia
[4]Grupo de Estudos de Gestão e Avaliação em Saúde, Instituto de Medicina Integral Prof. Fernando Figueira, Recife, Brazil
[5]Universidade de Pernambuco, Recife, Brasil
[6]Escuela de Salud Pública Salvador Allende Gossens, Universidad de Chile, Santiago de Chile, Chile
[7]Instituto de Salud Pública, Universidad Veracruzana, Veracruz, México
[8]Maestría en Salud Pública, Centro de Estudios Interdisciplinarios, Instituto de la Salud Juan Lazarte, Universidad Nacional de Rosario, Rosario, Argentina
[9]Facultad de Enfermería, Universidad de la República, Montevideo, Uruguay
Contact: ivargas@consorci.org

Introduction

Although fragmentation in the provision of health care is considered an important obstacle to effective care, evidence on best practices in care coordination in Latin America is scant. The aim of the FP7 funded Equity-LA project is to evaluate the effectiveness of different care integration strategies in improving coordination across care levels and related care quality in six healthcare systems: Argentina, Brazil, Chile, Colombia, México and Uruguay.

Methods and analysis: A controlled before and after quasi-experimental study taking a participatory action research approach. In each country, two comparable healthcare networks (intervention and control) were selected. The study consists of four phases: 1) Base-line study to establish network performance in care coordination and continuity, using a) qualitative methods - semi-structured interviews and focus groups of health managers, professionals and users; and b) quantitative methods - two questionnaire surveys with samples of 173 primary and secondary care physicians and 392 users with chronic conditions per network; sample size calculated to detect a proportion difference of 15% and 10%, before and after intervention ($\alpha = 0.05$; $\beta = 0.2$ in a two-sided test); 2) Bottom-up participatory selection, design and implementation of shared care strategies, a process led by the local steering committee; 3) Evaluation of the effectiveness of interventions applying the same design as in the base-line study and associated factors; 4) Cross-country comparative analysis.

Results and relevance

The project will generate evidence to inform policy making on best practices of integration between primary and secondary care in different types of health systems in Latin America, with particular reference to chronic diseases, and on the effect of new organisational approaches on quality of care, in different health care contexts also relevant for European healthcare systems.

Key messages

- There is scant evidence on best practices in care coordination in Latin America
- Results on care coordination might depend on contextual and process factor

Use of healthcare services in the region of origin among patients with an immigrant background

Nicoline Lokdam

N Lokdam[1], *M Kristiansen*[2], *LN Handlos*[2], *ML Norredam*[1,2]
[1]Section of Immigrant Medicine, Department of Infectious Diseases, Copenhagen University Hospital, Hvidovre, Denmark
[2]Danish Research Centre for Migration, Ethnicity and Health, Department of Public Health, University of Copenhagen, Denmark
Contact: gqn260@alumni.ku.dk

Background

In Denmark, immigrants have been shown to have a higher use of healthcare services abroad. Since this use can have an impact on both the individual patient and the healthcare system in the country of residence, research into underlying reasons for this use is of increasing relevance. This study therefore investigates what motives patients with an immigrant background have for seeking healthcare services in their region of origin.

Method

The study was based on 10 semi-structured interviews with 10 patients who had an immigrant background, primarily from Turkey and the Middle East, recruited at a clinic of immigrant medicine in Denmark. The interviews were analysed thematically to elucidate motives for seeking healthcare services abroad, with focus on push and pull factors.

Results

Four motives for seeking healthcare in the region of origin were found: the perception of availability, in terms of quantity and access; familiarity, conceptualised as feeling comfortable within the healthcare system; perception of quality of services; and finally, the perceived need for a second opinion. All motives emerged simultaneously as push factors, motivating immigrants to explore healthcare services abroad, and pull factors, attracting them to their country of origin. Affordability did not emerge as an independent motive but influenced the other factors.

Conclusion

The use of healthcare services abroad by patients with an immigrant background constitutes active health-seeking behaviours shaped by a range of factors perceived to be limiting access to high-quality services in Denmark. Further research, including quantitative studies, should be initiated to investigate the importance of these motives among larger, more diverse immigrant groups, consequences for treatment regimes, and the healthcare professionals' perspective on the use of healthcare in the region of origin among immigrant patients.

Key messages

- The use of healthcare services in the region of origin among patients with an immigrant background is influenced by push and pull factors in the country of residence and in the region of origin
- The most important motives for seeking healthcare services in the region of origin is availability, familiarity, quality and the need for a second opinion

Old Age Consumer's Experience With Physician In Primary Health Care In Serbia

Katarina Vojvodic

K Vojvodic[1], Z Terzic Supic[2]
[1]Institute of Public Health, Belgrade, Belgrade, Serbia
[2]Institute of Social Medicine, University of Belgrade, School of Medicine, Belgrade, Serbia
Contact: kvojvodic@gmail.com

Background

Patient experience reflects quality of care and it is an important parameter for monitoring and analyzing the health care quality. Aging population is getting larger, people getting older and have more needs from health services.

Methods

The data were extracted from The National Customer Satisfaction Surveys (2009-2013). Questionnaire consisted of questions about demographic characteristics, availability of health service, frequencies of using the health care, preventive cancelling, customer experience with doctors, nurses and health services and one for comments. We analyzed questions related to the patient experience in contact with general practitioners (GP). In the statistical processing we used the descriptive method, Chi-square and nonpartisans test ($p < 0.001$).

Results

Consumers 65+ were included in the study ($n = 33.818$, 21.9% of all in 5 years). The customers were 72.5 ± 5.68 years old, more woman (16.878, 51.2%)) were tested and they have the same doctor for more than 3 years (65.7%). There are statistically significant difference in patient experience and socio-demographic characteristics, the way they choose their doctors and the length of visiting the same doctor ($p < 0.001$). Most of the patient have rated very high: carefully listening of the GP (78.1%), taking enough time for patient (84.7%), knowing patient's private (78.1%) and illness history (87.0%). The same was with giving clear explanation about illness and prescribed therapy (88.5%). Most of them felt more capable to deal with health problem after visiting (82.7%) and would go first to their GP if they have health problem (91.1%). There is statistical significant difference in observed between parameters and years, and decrease trend in positive experience is noticed.

Conclusions

Even positive experiences have the high rate in each year, the significant decrease is present. It is necessary to take measures to bring back good practice that gives better patient's experience in contact with GPs.

Key message

- Better understanding of old patient's need, better health care for them

Needs for professional caregivers in Bulgarian health care

Krasimira Laleva

K Laleva[1], L Georgieva[1], S Nikolova[1], L Tzvetkov[2]
[1]Department of Social Medicine and Healthcare Organisation, Medical University of Varna, Varna, Bulgaria
[2]Vocational Training Centre, Medical University of Varna, Varna, Bulgaria
Contact: klaleva@abv.bg

Background

Major demographic problem in Bulgaria is the population ageing, accompanied with growing of chronic diseases and disabilities. It is known that persons in need receive care mostly by family members and social workers who do not have enough medical knowledge and encounter serious difficulties in the process of caregiving. The large scale of emigration leads to shortage of health professionals. Focusing on these problems, the Vocational Training Centre (VTC) at Medical University of Varna first in the country started training of "health assistants" (caregivers with professional qualification) in medical school, in 2012.

Methods

A study of workload of the physicians, nurses and midwives ($n = 463$), and activities that could be performed by professional caregivers, was carried out in nine hospitals in five Bulgarian cities. Information about satisfaction of training in VTC was collected from first two courses of health assistants ($n = 38$) graduated in 2013 and 2014, via semi-structured interview.

Results

Results show that most health professionals consider they are overloaded. More than a half of nurses (53.3%) and 43.8% of midwives feel pressed by the workload 'all the time'; 'frequently' - 52.1% of midwives and 38.5% of nurses; and others – 'rarely' or 'never'. The highest level of overload is in the following wards: Obstetrics and Gynaecology, Anaesthesiology and Intensive Care, Internal Diseases, Neurology, and Oncology. Almost all respondents suggest that employing health assistants in hospitals would facilitate largely the work of nurses and midwives and decrease stress at work while helping patients in activities of daily living and some health care activities. Graduated health assistants value highly the skills and knowledge acquired, and express their willingness in applying them.

Conclusions

Including health assistants in the health system could help overcoming the problem of decreasing attention to patients, caused by shortage of health staff.

Key messages

- Hiring professional caregivers could reduce the overload of nurses and midwives in hospitals, and the stress of families who take care of old, disabled or chronically ill relatives at homes

- Health assistants trained within a medical school could increase the quality of supporting care and patients' quality of life

Different ways of organizing physicians' on-call work in Finland: effects on sleep

Tarja Heponiemi

T Heponiemi, E Siuvatti, A-M Aalto, M Elovainio
National Institute for Health and Welfare, Helsinki, Finland
Contact: tarja.heponiemi@thl.fi

Background

Health care services must be provided round-the-clock which normally means on-call work for physicians. On-call work usually includes detrimental elements such as long periods awake and disruption of circadian rhythms. Therefore, new ways of organizing on-call work has recently been introduced. In this study, we compared recovery (sleep quality) between two slightly different ways of organizing physicians' on-call work: (A) the traditional including long on-call periods besides own main job and (B) the new way which includes physicians who specialise on on-call work and do mainly only on-call work and on-call is done in shorter periods.

Methods

We examined physicians' on-call work in Finnish emergency rooms with different ways of organizing their on-call (including work rotation system). Part of the physicians worked on-call in traditional way ($n = 16$) and part worked (emergency physicians, $n = 21$) in the new way. Physicians took part in the field experiment including one week's sleep-time EEG-monitoring and all-day actigraph-monitoring. In addition, they aswered to survey about their work environment, stress, well-being, etc.

Results

The mean weekly working time was 40.9 h for physicians doing traditional on-call periods and 41.9 h for emergency physicians. Mean total sleep time per night was 6 h 15 min for traditional way physicians and 6 h 27 min for emergency physicians. Physicians doing traditional on-calls had less deep sleep compared to emergency physicians ($F = 4.44$, $p = 0.036$; 57 vs. 67 min/night). Moreover, physicians doing traditional on-calls had less REM sleep than emergency physicians, but this association was only marginally significant ($F = 3.64$, $p = 0.058$; 99 vs. 113 min/night).

Conclusions

Our results are only preliminary but they suggest that organizing physicians' on-call work in shorter periods as a main job may have beneficial effects for physicians' sleep and recovery.

Key messages

- Physicians doing traditional long on-call periods had less deep sleep and REM sleep compared to physicians doing shorter on-call periods as a main job
- According to our results organizing physicians' on-call work as specialised emergency physicians who work shorter periods and as a main job might be beneficial for the recovery of physicians

Managers' Views on the Development of the Case Manager Model in Finland

Asta Lassila

Lassila[1], Korhonen[1], Luukkanen[1], Eriksson[1,2]
[1]Health care and Nursing, Helsinki Metropolia University of Applied Sciences, Helsinki, Finland
[2]University of Turku, Department of Nursing Science, Turku, Finland
Contact: asta.lassila@metropolia.fi

The structure of and operations of social and health care are being renewed presently. The Case Manager -model and its development for the outpatient services of health care centers will renew the service process and involve clients with multiple chronic conditions in their own care. Developing the Case Manager -model in the organization based on the Chronic Care Model is required. The purpose of the study was to describe the views of health care managers on developing the Case Manager model for outpatient services. The target group in the study included the health care managers of six municipalities who had participated in the ESR-project for developing the Case Manager model. The data were collected by using a thematic questionnaire for the health care managers ($N = 14$) in spring 2014 and five thematic group interviews for health care managers ($N = 19$) in autumn 2014. The data were analyzed by inductive content analysis.

The expectations of the managers towards the Case Manager model were that it should develop the appointment process in health care centers and produce practices creating health benefits. The managers had experience of developing the Case Manager model in the organization and of the factors enabling the application of the model. As part of the development of the model, the organization's Case Manager practices as well as self-care support were introduced. Support from the organization and the managers was seen as being essential for the Case Manager practice. The goal of the Case Manager model is to actively recognize clients who would benefit the most from the services and to support their self-care. When the care of the clients with multiple chronic conditions is managed, resources can be allocated to other areas of health care center outpatient services. Commitment from the management and organization is needed as well as common discussion between different groups of employees and managers have a significant role in this process.

Key messages

- Managers in health care have a significant role in developing and spreading unified practices as well as in the organization of new work practices and educating personnel
- Co-operation is essential in strengthening clients' self-care and managers have a significant role in the process

How do doctors and patients perceive coordination and continuity across care levels in Catalonia?

Sina Waibel

MB Aller[1], S Waibel[1], I Vargas[1], ML Vázquez[1], J Coderch[2], F Cots[3], M Abizanda[4], S Calero[5], Ll Colomés[6], JR Llopart[7], J Farré[8], GAIA (Grup d'Avaluació de la Integració Assistencial)
[1]Health Policy and Health Services Research Group, Consortium for Health Care and Social Services of Catalonia, Barcelona, Spain
[2]Grup de Recerca en Serveis Sanitaris I Resultats en Salut, Serveis de Salut Integrats Baix Empordà, Palamós, Spain
[3]Parc de Salut Mar, Medical Research Institute (IMIM), Barcelona, Spain
[4]Institut de Prestacions d'Assistència Mèdica al Personal Municipal, Barcelona, Spain
[5]Catalan Health Institute, Barcelona, Spain
[6]Health Policy and Health Services Research Group; Strategic Planning Division. SAGESSA Group, Reus, Spain
[7]Badalona Healthcare Services, Badalona, Spain
[8]Centre Integral de Salut Cotxeres, Barcelona, Spain
Contact: swaibel@consorci.org

Background

Care coordination is the harmonious connection of the different services needed to provide care to a patient throughout the care continuum in order to achieve a common objective without producing conflicts. Continuity of care relates to how patients experience coordination. The objective is to compare doctors' perceptions of coordination and patients' perceptions of continuity across care levels in different areas of the Catalan healthcare system (Spain).

Methods

A descriptive, qualitative study was conducted using semi-structured interviews with patients (49), GPs (26) and specialists (24) in three healthcare areas with different management models of services. Interviews were recorded and transcribed. Data was segmented by informant and study area. A thematic content analysis was carried out with a mixed generation of categories.

Results

Physicians and patients generally perceived that there was care coordination and continuity across levels, respectively and they mainly referred to the clinical information transfer and agile communication between doctors. Additionally, doctors and patients also perceived consistency in prescriptions and tests, with no duplication. However, some limitations to both coordination and continuity were highlighted, some of which only emerged in some areas, and related to appropriate referrals and accessibility across levels. Firstly, some GP expressed insufficient specialist care when required -too early emergency and impatient discharge-, some referrals were rejected and patients perceived lack of needed referrals. Specialists considered that some primary care referrals were unnecessary. Secondly, especially GPs and patients expressed long waiting times to non-urgent secondary care.

Conclusions

Doctors and patients perceived that there is care coordination and continuity across care levels with some limitations that differed among areas and informants.

Key messages

- Main reasons for perceiving coordination and continuity across levels are information transfer and communication
- Problems refer to appropriateness of referrals and accessibility to secondary care

Factors influencing coordination and continuity across care levels in the Catalan Health Care System

Sina Waibel

MB Aller[1], S Waibel[1], I Vargas[1], ML Vázquez[1], J Coderch[2], F Cots[3], M Abizanda[4], S Calero[5], Ll Colomés[6], JR Llopart[7], J Farré[8], GAIA (Grup d'Avaluació de la Integració Assistencial)
[1]Health Policy and Health Services Research Group, Consortium for Health Care and Social Services of Catalonia, Barcelona, Spain
[2]Grup de Recerca en Serveis Sanitaris I Resultats en Salut, Serveis de Salut Integrats Baix Empordà, Palamós, Spain
[3]Parc de Salut Mar, Medical Research Institute (IMIM), Barcelona, Spain
[4]Institut de Prestacions d'Assistència Mèdica al Personal Municipal, Barcelona, Spain
[5]Catalan Health Institute, Barcelona, Spain
[6]Health Policy and Health Services Research Group; Strategic Planning Division. SAGESSA Group, Reus, Spain
[7]Badalona Healthcare Services, Badalona, Spain
[8]Centre Integral de Salut Cotxeres, Barcelona, Spain
Contact: swaibel@consorci.org

Background

Care coordination is the harmonious connection of the different services needed to provide care to a patient throughout the care continuum in order to achieve a common objective without producing conflicts. Continuity of care is related to how patients experience the coordination of services. The objective is to identify factors influencing care coordination and continuity across care levels in different areas of the Catalan healthcare system (Spain) from the physicians' and users' perspective.

Methods

A descriptive, qualitative study was conducted using semi-structured interviews with patients (49), GPs (26) and specialists (24) in three healthcare areas with different management models of services. Interviews were recorded and transcribed. Data was segmented by informant and study area. A thematic content analysis was carried out with a mixed generation of categories.

Results

Physicians and patients generally perceived that there was care coordination and continuity across levels, respectively; however also identified some limitations, which differed among areas. Factors of the (non-)existence related to: 1) The organizations: mechanisms (e.g., shared medical records), especially mentioned by physicians, co-location and small organization size favoured communication; whereas work overload–worsened by the economic crisis–decreased information use, linked to inappropriate referrals; 2) The physicians: mutual knowledge in some areas accelerated access to secondary care and enabled communication, whereas the GPs' technical competence favoured referrals to the right care level when necessary. Attitude to collaborate and commitment to patient care, the latter mentioned by patients, further emerged as enabling factors of consistency of care.

Conclusions

Most identified factors were mentioned by both physicians and patients and differed among areas. Addressing these factors, e.g. promoting mutual knowledge, could counteract identified difficulties.

Key messages

- Factors influencing coordination and continuity across care levels relate to the organizations and physicians
- Addressing these factors could improve care coordination and continuity

The reimbursement of targeted cancer therapies in Bulgaria: is it evidence-based?

Nadia Veleva

T Vekov, R Koleva-Kolarova, S Aleksandrova-Yankulovska, N Veleva
Department of Public Health Sciences, Faculty of Public Health, Medical University – Pleven, Bulgaria
Contact: veleva_nadia@yahoo.com

Background

Targeted therapies can prolong the survival and quality of life of cancer patients at the expense of increased health expenditure and resulting economic burden on the healthcare system. The decision whether a therapy is reimbursed should ideally be based on evidence from clinical trials and meta-analyses confirming the efficacy of the treatment and an economic analysis of its cost-effectiveness.

Methods

Statistical data on reimbursement expenditure and type of targeted therapy for four cancers (breast cancer (BC), non-small cell lung carcinoma (NSCLC), renal cell cancer (RCC) and chronic myelogenous leukemia (CML) was obtained from the National Health Insurance Fund (NHIF) for the period 2012–2015. A systematic literature search was performed in PubMed to identify studies which evaluate the cost-effectiveness of the targeted therapies.

Results

There was 70% increase in the reimbursement expenditure of the NHIF for targeted therapies for BC, NSCLC, RCC and CML for the period 2012–2015. Altogether there were seven targeted therapies currently reimbursed by the NHIF: one for BC and two for each of the other cancer types. The systematic literature search revealed that the targeted therapies for BC and RCC were not cost-effective. Contradictory evidence was found regarding the cost-effectiveness of the targeted therapies for NSCLC. From the reimbursed treatments for CML, the first line targeted therapy was cost-effective, while the second line therapy was not.

Conclusions

The reimbursement of targeted cancer therapies in Bulgaria is not supported by evidence of their cost-effectiveness, which results in increased and ineffective spending of the healthcare budget. The spending can be optimized by including generic therapies into the positive reimbursement list and conducting local studies to evaluate the effectiveness of targeted therapies.

Key message

- The reimbursement of targeted cancer therapies in Bulgaria is not evidence-based and should be optimized by including generic therapies into the positive reimbursement list

Implications of the new concept of health for public health policy: a qualitative analysis

Marielle Jambroes

M Jambroes[1], T Nederland[2], M Kaljouw[3], K vVliet[4], ML Essink-Bot[1], D Ruwaard[4]
[1]Dept public health, Academic Medical Centre, Amsterdam, The Netherlands
[2]Verwey-Jonker Institute, Utrecht, The Netherlands
[3]National Health Care Institute, Diemen, The Netherlands
[4]Department of Health Services Research, Maastricht University, Maastricht, The Netherlands)
Contact: jambroes@me.com

Background

To explore the implications for public health policy of health as 'The ability to adapt and to self-manage, in the face of social, physical and emotional challenges'.

Methods

Secondary qualitative data analysis of 28 focus group interviews, with 277 participants involved in public health and health care, on the future of the Dutch healthcare system. WHO's essential public health operations (EPHOs) were used as a framework for analysis.

Results

Starting from the new concept of health, participants perceived health as an individual asset, including an active approach in the Dutch population towards health promotion and adaptation to a healthy lifestyle. Sectors outside health care and public health were considered as resources to support individual lifestyle improvement. Integrating prevention and health promotion in hospital care is also expected to stimulate individuals to comply with a healthy lifestyle. Attention should be paid to persons less skilled to self-manage their own health, as this group may require a healthcare safety net. The relationship between individual and population health was not addressed, resulting in little focus on collective prevention to achieve health.

Conclusions

The new concept of health as a basis for changes in the healthcare system offers opportunities to create a health-promoting societal context. However, inequalities in health within the general population may increase when using the new concept as an operationalisation of health. For public health the main challenge is to maintain focus on the collective socioeconomic and environmental determinants of health and disease and, thereby, preserve collective prevention.

Key message

- The main challenge of the new concept of health for ph is to maintain focus on the collective socioeconomic and environmental determinants of health and disease and, to preserve collective prevention

The introduction of pay-for-performance in France and Germany: one size does not fit all

Matthias Brunn

M Brunn[1], *P Hassenteufe*[2]
[1]Université Paris Saclay, UVSQ, Printemps; Ev. Krankenhaus Königin Elisabeth Herzberge, Berlin, Germany
[2]Université Paris Saclay, UVSQ, Printemps; Sciences Po, Saint-Germain-en-Laye, France
Contact: mattbrunn@gmx.de

Background

Health systems in France and Germany are facing comparable challenges and have recently adopted similar policies to improve quality of care. A policy innovation widely implemented in Anglo-Saxon countries is pay-for-performance (P4P), payment schemes in form of bonuses that align payments with payers' goals for quality improvement. While P4P has been implemented in France since 2009, Germany is currently debating the introduction on a wide scale. Both countries reference P4P experiences abroad, qualifying these processes as policy transfer which is linked to phenomena such as diffusion and convergence and has been little studied in the health sector.

This study explores and compares the transfer of P4P to France and Germany, examines factors that may explain differences and draws conclusions for future policy innovations.

Methods

Using the similarities of the French and German health systems as a methodological basis for comparison, we performed a literature review and currently undertake semi-structured stakeholder interviews. We draw on a theoretical framework based in particular on the roles of institutions and actors in the health system.

Results

Our preliminary results show that in France P4P has been introduced almost single-handedly by statutory health insurance, bypassing collective agreements with physicians and following a prevailing political logic of medically based cost-containment.

In Germany, a vivid multi-stakeholder discussion with support from the previous government currently stalls over technical work on the construction of quality indicators in the remit of a new public agency.

Conclusions

While both countries explicitly reference similar external models, there appear to be significant differences in key actors, process and content, which are closely tied to policy streams that vary between countries. At least in the case of France, P4P seems to be a strategic tool for achieving effects beyond the logic of preceding P4P experiences.

Key messages

- Health policy transfer in the case of P4P has implications both for politics and clinical practice
- Increased awareness for the latter is likely to better match the innovation and its receiving system

Predicting health expediture of not hospitalized patients

Davide Golinelli

D Golinelli[1], *F Nisticò*[1], *C Quercioli*[1], *F Moirano*[3], *G Messina*[1,2], *N Nante*[1,2]
[1]Post-Graduate School of Public Health, University of Siena, Italy
[2]Health Services Research Laboratory, University of Siena, Italy
[3]Department of Health, Piedmont Region, Italy
Contact: davidegolinelli@gmail.com

Background

In the Italian NHS there is a systematic discrepancy between spending and financing, due to difficulties in defining and measuring health needs. Our aim was to construct a tool melting both objective and subjective health data, in order to estimate the related costs of not-hospitalized patients.

Methods

The study was carried out from 2009 to 2013.

Clinical information were obtained from 887 patients who attended General Practitioner in Siena's area (Italy); subjective health profiles were obtained using Short Form 36 Questionnaire(SF36) whose 8 scales originate 2 indexes: Physical Component Summary(PCS) and Mental Component Summary(MCS). Severity(SI) and Comorbidity Indexes were obtained from the Comorbidity Illness Rating Scale (CIRS). Body Mass Index(BMI) and Charlson Index(CI) were also included.

Health costs per patient per year were obtained linking health expenditure (pharmaceutical and hospital discharges data) with patients profiles.

Univariate and multivariate analysis were performed with Stata.

Results

Health expenditure was influenced by age, education, job, BMI, CI, SI, SF36 scales and PCS($p < 0.05$). We obtained that SI and PCS were the best indexes to predict health expenditure; from these results, we categorized the PCS in percentiles, we included it in the CIRS list as a new parameter, and we obtained the Severity Index implemented with Perceived Health(SI-PH).

In the multivariate analysis the regression coefficient of the SI-PH, with health expenditure as an outcome, was strongly higher than that of PCS and slightly higher than that of SI.

Conclusions

Multidimensional indicators are best predictors of health spending than mono-dimensional ones. Limitations in the use of traditional objective health measures seem to be overcome with the new combined index, useful on out-of-hospital population.

Key messages

- While the impact of inpatient health costs is well studied, outpatient health care expenditure still need indicators to be predicted with
- Melting subjective and objective health data could be a way to monitor out-of-hospital patients costs

Early intervention home visiting program in a multi ethnic population

Maria Leirbakk

MJ Leirbakk[1], J Torper[2], J Neerland Opsahl[2], JH Magnus[1]
[1]University of Oslo, Norway
[2]City Health Department Oslo, Norway
Contact: m.j.leirbakk@medisin.uio.no

Background

In an increasingly complex society with large social differences, Norway spends considerable resources on secondary and tertiary measures. In Stovner district in Oslo, 30 100 inhabitants, 49% minorities from 137 different countries, the budget of child welfare is 7 times as high as the total budget for mother and child health care service, the health care service for youth and the school health care services combined. Studies show that early intervention improves parent and child relationship, child development, children's social adaptation and school readiness and reduce the need for costly secondary and tertiary preventive measures. The aim of the current study was to develop an early intervention home visiting program integrated in the existing services.

Methods

Community based participatory design, focus groups, key informant interviews with key stakeholder, mothers, public health nurses (PHN), district health administration and feedback loops were used in the development of the 'New mothers' project.

Results

Focus groups with mothers (36) and 8 key informant interviews were conducted. The program content was developed and piloted. So far 73% of the new mothers invited have had 2–3 visits, of which 66% are minorities. The overall use of the maternal and child health care services was 96%.

Conclusion

Acceptability of early home visits and a close follow up by a "family" PHN was overwhelming in this multi ethnic population. The project created a natural relationship and a platform for strengthening maternal coping skills and confidence in parenting. The mothers experienced that time and a safe and known environment gave them an opportunity to go in depth and to focus on what was important. The PHNs have been able to customize the offers according to the family needs and preventive services are utilized at a higher degree. The project was designed with a close monitoring and evaluation, and is now assessed for scale up in the municipality of Oslo.

Key message

- Early intervention home visit program by a "family" PHN gives new mothers a safe base to obtain confidence in parenting. This may prevent future needs of secondary and tertiary measures

Place of death in Switzerland: dying in hospital or non-acute institutions?

Xhyljeta Luta

X Luta, R Panczak[1], M Maessen[1], M Egger[1], M Zwahlen[1], A Stuck[1,2], K-Clough Gorr[1,3]
[1]Institute of Social and Preventive Medicine, University of Bern, Bern, Switzerland
[2]University Department of Geriatrics, Inselspital Bern, Bern, Switzerland
[3]Section of Geriatrics, Boston University Medical Center, Boston, MA, USA
Contact: xhyljeta.luta@ispm.unibe.ch

Background

Place of death (PoD) is an important indicator for quality of end of life care (EOL). Many people express the desire to die at home. Yet research reports that nearly 40% of patients die in acute care hospitals.

Objective

The study aims to describe differences in the proportion of deaths between hospitals and SOMED institutions (nursing homes, institutions for people with disabilities, addiction and psycho-social problems)

Methods

We conducted a retrospective study of people who died in 2010. Patients were identified from medical statistics of the Swiss hospitals (MedStat) and SOMED institutions. A conceptual framework was developed to guide analysis. We describe interactions between three levels of determinants: (1) individual (e.g. age, gender); (2) clinical (diagnosis); and (3) supply measures (e.g. hospital beds) across 71 health service areas (HSA).

Results

We identified 47,078 people who died in 2010. Deaths occurred more frequently in hospital (39.3%) than in SOMED (36.5%). Number of deaths across HSA ranged between 15–6112. At individual level, we identified age and gender differences in the place of death. We found that people who died in hospital were more likely to be males and younger. Among SOMED deaths 33.5 % were aged 91 + compared to hospital 18.7%. At clinical level, most common reason for hospital admission were neoplasms (28%), circulatory (24%) and respiratory illnesses (9.4%). At health system level, we found an association between place of death and supply measures (number of physicians, nurses, beds). The main department of inpatient care among hospital deaths was internal medicine (63.9 %) followed by surgery (21 %) and geriatrics (8.3 %).

Conclusions

Hospitals remain the most frequent PoD in Switzerland. Socio-demographic factors such as age, gender and supply measures contribute to the difference in the proportion of hospital admission with death.

Key message

- Socio-demographic factors such as age, gender and supply measures contribute to the difference in the proportion of hospital admission with death

Gender inequity in Kosovo and its relationship to prenatal care

Kristefer Stojanovski

K Stojanovski[1], T Janevic[2], I Hoxha[3], A Holla[4]
[1]Center for Regional Policy Research and Cooperation, Studiorum, Skopje, Macedonia
[2]Department of Epidemiology, Rutgers University School of Public Health, Piscataway, NJ, USA
[3]Institute for Social and Preventive Medicine, University of Bern, Bern, Switzerland
[4]Human Development Network, The World Bank Group, Washington, DC USA
Contact: kristefers@gmail.com

Introduction

Gender inequity is an issue in the Balkans and may contribute to poor maternal health outcomes. Our objective was to examine differences in gender empowerment and prenatal care among Romani, Ashkali, Egyptian (RAE), Serbian, and Albanian women in Kosovo.

Methods

We surveyed n = 603 Romani, Serbian, and Albanian women in Kosovo aged 16 to 45 who had given birth in the past two years, between November 2012 and February 2013 using purposeful snowball sampling. Log-binomial and multinomial regression models were computed to examine associations between ethnicity, and empowerment; as well as to examine the relationship between empowerment and adequate prenatal care (4 or more visits) and the potential modifying effect of ethnicity on this relationship.

Results

In preliminary analyses, 87% of all women were not involved in the labour workforce. Sixty-six percent of all women were jointly involved in household resource decision making, 30% were excluded, and only 3% were sole decision-makers. Forty-two percent of women responded being sole healthcare decision makers, 43% were jointly involved, and 15% were excluded. Only 18% of RAE women were sole healthcare decision-makers, as compared to 44% in Albanian women, and 64% in Serbian women; and 33% of RAE women were fully excluded from healthcare decisions (p-value = 0.000). RAE and Albanian women had similar rates of exclusion from household resource decisions, 39% and 44%, as compared to 10% in Serbian women (p-value = 0.000). Additionally, 19% of RAE women had less than four prenatal care visits, as compared to only 5% in Albanian and 1% in Serbian women (p-value = 0.000).

Conclusion

Preliminary findings show that women of various ethnic groups in Kosovo experience different levels of empowerment and prenatal care, with RAE women having worse outcomes. Additional analyses will further examine differences by ethnicity and empowerment, and also assess how ethnicity might modify the effect of empowerment on prenatal care.

Key messages

- Disparities in prenatal care services exist among women in Kosovo, with Roma, Ashkali and Egyptian (RAE) women having poorer outcomes
- Disparities in gender equity also exist and may exacerbate poor reproductive health, particularly poorer prenatal care service

The youth public health workforce in the Netherlands: size, composition and regional variation

Marielle Jambroes

MJ Jambroes, ML Lamkaddem, KS Stronks, MLEB Essink-Bot
Dept public health, academic medical centre, Amsterdam, The Netherlands
Contact: jambroes@me.com

Objectives

We aim to support workforce planning and policy development of youth public health (yph) in the Netherlands, by 1) enumerating the yph workforce and 2) determining if regional variations in the workforce capacity can be attributed to variations in indicators of yph need.

Methods

A national survey, using online questionnaires based on WHO essential public health operations (EPHOs) among all yph workers. Respondents (n = 3191) were recruited through organisations involved in yph (participation: 93%).

Results

The yph workforce is multi-disciplinary, predominantly female (96%) and 62% had more than 10 years working experience. We found regional variations in size (range: 688 to 1007 children/FTE) and composition of the workforce. All EPHOs were provided and could be clustered in an operational or a policy profile. The operational profile was equally dominant in all regions.

Regional differences in children/FTE were unrelated to the percentage of children with overweight, living in poverty or with an referral for youth care. We found a positive association between the percentage of children <5 yrs or living in deprived areas with the size of the workforce, suggesting a positive relationship between capacity and need.

Conclusion

Yph is executed by an experienced, multi-disciplinary workforce. Regional variations in the yph workforce capacity were partly attributable to indicators of yph needs. More research is needed on the effects of workforce capacity on youth health outcomes relative to need, to further support workforce planning.

Key messages

- Youth public health (yph) is executed by an experienced, multi-disciplinary workforce.Regional variations in the yph workforce capacity were partly attributable to indicators of yph needs

Patient Preference for Lung and Colon Cancer Therapy in Germany

Katharina Schmidt

K Schmidt, K Damm, JM von der Schulenburg
Center for Health Economics Research Hannover (CHERH), Leibniz University of Hannover, Germany
Contact: ks@cherh.de

Background

There is a growing interest in patient-reported outcomes (PROs) to improve both pharmaceuticals and the treatment process. They are particularly relevant in oncology, where improvements in survival and response rates are marginal between the treatment options and severe side effects may occur. The aim of this study is to identify the chemotherapy treatment preferences of lung (LC) and colon cancer (CRC) patients.

Methods

The Discrete Choice Experiment (DCE) sets were derived based on guided qualitative interviews (n = 38). LC and CRC patients aged 18 years and older who received at least one cycle of chemotherapy are eligible for inclusion. Sociodemographic and quality of life data are collected. Descriptive statistics and multivariate regression methods (conditional logit and latent class models) are employed to identify potential bias trough group differences and determinants of patients‘ therapy preferences.

Results

The preliminary sample comprises of 57 patients (32 LC, 25 CRC) with a median age of 64 years. Five attributes were identified for inclusion in the DCE based on the pilot study: survival, guidance through therapy, appearance, physical capacity as well as food intake and digestion. The conditional logit model for choice of therapy showed a significant association with survival (Odds Ratio = 8.31, p < 0.001), physical capacity (OR = 0.46, p < 0.001), food intake and digestion (OR = 0.45, p < 0.01) as well as appearance (OR = 0.81, p = 0.05). Additional analyses will be conducted after completion of patient recruitment.

Discussion

Overall survival seems to be the most important attribute for patients. These findings are consistent with current state of research. Further results will be updated during the next months until completion of the recruitment of 250 LC and 250 CRC patients. A Limitation of this study is the regional focus on specialized clinics in Lower Saxony. However, first recommendations for patient oriented improvement of therapy can be drawn.

Key messages

- Therapy for colon and lung cancer patients should involve patient preferences
- Overall Survival is the most important attribute for the patients in the therapy

Management of care among primary health care patients: Results from a qualitative vignette study

Tuulikki Vehko

T Vehko, A-M Aalto, T Sinervo
National Institute for Health and Welfare (THL), Health and Social Services, Helsinki, Finland
Contact: tuulikki.vehko@thl.fi

Background

Short of workforce of primary health care (PHC) challenges to improve the division of labour and care processes in Finland.

Methods

We conducted a survey to elicit professionals' descriptions of management of care using standardized vignettes: 1) a sore throat patient as an example of episodic care 2) an unbalanced type 2 diabetes and hypertension patient, who had widowed lately, as an example of the need of integration in care. The survey focused on professional skill-mix and the care management.

Results

Key informants ($n = 45$, doctors 56%, register nurses 44%) working in daily practice in public (78%) or private PHC units participated. Organizing the care of the sore throat patient reflected two variations of care management: one with quick read diagnostic test use and another with patient laboratory visit. Most of the care providers favoured quick read tests (51% public vs. 60% private) and in both variations nurses take the main responsibility of the care with an essential option to consult a doctor. The skill-mix for managing patient with unbalanced type 2 diabetes and hypertension would include doctors (92%); nurses (89%); nurses, special focus on diabetes care (22%); physiotherapist (30%); nutritionist (11%); and/ or social worker (8%). Overall responsibility for management of this patient's care would hold doctor and nurse work pair (27%), doctor (33%), nurse (16%) or no clear responsibility (24%).

Conclusions

It has been estimated that in one fifth of the PHC visits the cause is common cold. Therefore organising care using mainly nurses would save the doctors' time for the treatment of patients with chronic conditions. New technologies could change treatment practices and cut off a phase (e.g. laboratory visit) from the care process. Care processes for the patient with chronic conditions vary intensely.

Key messages

- Division of labour between registered nurses and doctors specialised in PHC is a state of change
- Care management between PCH units standardized with the vignette of chronic conditions included wide variation

Rehabilitation outcomes in patients with arthroprostesis

Agnese Verzuri

N Nante[1], A Verzuri[1], A Rossetti[2], C Averame[2], R Carioti[3], A Serafini[1], AM Gentile[1,2], GA Checchia[3]
[1]Post-Graduate School of Public Health, University of Siena, Italy
[2]Private Clinic ''San Michele'', Albenga, Italy
[3]''Santa Corona'' Hospital, Local Health Authority 2(Savona Province), Liguria Region, Italy
Contact: agneverzuri@gmail.com

Background

Interventions for joint replacement has increased, so, the relative rehabilitation has undergone important developments. Aims of our study are to measure rehabilitation outcomes in the short post-operative term and to identify variables that can influence them.

Methods

The study was conducted between January and April 2014 in a group of 289 patients admitted after arthroplasty into a clinic specialized in intensive rehabilitation. For each patient was obtained: age, gender, Body Mass Index(BMI), Comorbidity Index(CI), Severity Index(SI), surgery day, day of transfer in the clinic, day of discharge, Functional Indipendence Measure(FIM)and Barthel scores at the admission. The last 2 measures was obtained also at the discharge.

We considered as outcomes: the end-point at discharge, the difference between the FIM and Barthel score between admission(1)and discharge(2).

Logistic regression was used for the analysis.

Results

Hip prosthesis:

- FIM2-FIM1, older patients at the univariate shows a greater recovery($p < 0.05$).The multivariate adds also that patients with high SI($p < 0.05$)and high CI($p < 0.05$)have more benefits;
- Barthel2-Barthel1,women have a greater recovery($p < 0.05$);

Knee prosthesis:

- FIM2-FIM1,the univariate shows that older patients have a greater recovery($p < 0.05$). This is not confirmed by the multivariate;
- Barthel2-Barthel1,patients with high CI($p < 0.05$)and SI($p < 0.05$)have a greater recovery.

The patients who arrive at the rehabilitation center on the third day after surgery,compared to those who arrive on fourth have a higher recovery($p < 0.05$).

Conclusion

The end-point shows outcomes similar to best international experiences.

Older patients and those with a complex clinical condition(CI and SI higher)seem to have a greater health gain during the intensive rehabilitation.

For surgical structure appear economically useful to move patients at the clinic in the third day after the intervention and this does not seem to have any negative impact on the patients' recovery.

Key messages

- Older patients and those with a clinical condition more complex (CI and SI higher) seem to have an health gain greater during the intensive rehabilitation
- For surgical structure appear economically useful to transfer at the intensive specialized clinic patients in third day after the intervention and this haven't any negative impact on recovery

Publication trends on population medicine programs in Primary Health Care: a bibliometric study

Gianfranco Damiani

G Damiani[1], A Acampora[1], L mBonelli[1], A Arandelovic[1], W Ricciardi[1], A Buja[2]
[1]Public Health Department, Università Cattolica del Sacro Cuore, Rome, Italy),
[2]Department of molecular medicine, Laboratory of public health and population studies, Univesity of Padua, Italy
Contact: gdamiani@rm.unicatt.it

Background

In the last two decades there has been a growing attention towards the necessity to switch from an individual care to a population-based approach for long term conditions in Primary Health Care in order to assess the population health needs and to guarantee system sustainability. In this context, various programs such as the ''Disease Management Programs'' or the ''Medical Home'' have been developed. The aim of this study is to evaluate publication output related to this issue and trends in the USA and in the European Countries.

Methods

This study consists of a bibliometric analysis of publications over the period 1988–2014. A systematic review was performed by searching MEDLINE database using specific keywords. The records were categorized according to the year of publication and the Country of first author's affiliation. The descriptive and inferential statistics were performed. Inferential analysis was performed trough a linear regression, the number of articles per year was considered as the dependent variable in a logarithmic scale, being the regression nonlinear in the parameters. Three different regressions were done, one referred to total of Countries, one to the USA and one to the European Countries.

Results

Out of 1387 records 1257 were included in the analysis. The distribution of the articles among Countries vary from 0,1% of the Ireland to 73% of the USA. The time trend analysis showed an increase by 24% of the number of publications per year (CI 95% 22%-27%) in the total of Countries, by 23% per year (CI95% 20%-25%) in the USA and of 10% per year (CI95% 7%-13%) in the European Countries.

Conclusion

The present study showed that there has been a growing interest in scientific research regarding to the population medicine approach in Primary Health Care both in the USA and European Countries. Further studies are necessary to assess the impact of these programs according to the Triple Aim perspective (effectiveness, patient experience, sustainability).

Key messages

- This is a contribution to the evidence of the relevance of population medicine for long term conditions in Primary Health Care
- European Healthcare Systems welfare oriented can implement population medicine programs in Primary Health Care supported by this evidence

Reaching goals of managed competition? The challenge of free health plan choice

Romy Bes

R Bes[1]*, E Curfs*[2]*, P Groenewegen*[1]*, J de Jong*[1]
[1]NIVEL (Netherlands Institute for Health Services Research), Utrecht, The Netherlands
[2]Open University, Heerlen, The Netherlands
Contact: r.bes@nivel.nl

Introduction

In the last decades, several countries have implemented a health care system based on managed competition. In such a system, health insurers are supposed to be prudent buyers of care on behalf of their enrolees. Selective contracting and channelling patients to contracted care providers is important for health insurers to be able to negotiate about quality and price with providers and thus reach the goals of the health care system. It is crucial that enrolees who actually need care choose restrictive health plans, since otherwise health insurers are not able to channel patients to contracted providers. Restrictive health plans are cheaper than non-restrictive health plans, but enrolees generally resent restrictions in provider choice. The aim of this study is to explain enrolees' choice for a restrictive health plan in exchange for a lower premium.

Methods

In 2014 a survey was conducted on members of the Insurance panel (response 78%; n = 3.417). In this survey enrolees are confronted with three choice sets, where they had to choose between two health plans.

Results

The results show that 37,4% of enrolees are willing to choose a restrictive health plan in exchange for a lower premium. When the restrictive health plan option also included a longer travel time, the number of people choosing the restrictive health plan decreased to 22%. Enrolees who choose a restrictive health plan are younger and healthier than enrolees who prefer a non-restrictive health plan. Also, lower income individuals more often choose a restrictive health plan.

Conclusions

This study shows that in the current situation, restrictive health plans are unattractive for older and more unhealthy enrolees. This means that enrolees who use care will not be likely to choose a restrictive health plan and, therefore, health insurers will not be able to channel them to contracted care providers. This undermines reaching the goals of the health care system based on managed competition.

Key messages

For a health care system based on managed competition to work, it is very important that enrollees who use care choose a restrictive health plan. Yet, they are least likely to purchase such a plan

This limits the ability of health insurers to channel patients to contracted providers and thus the ability of insurers to negotiate with care providers about price and quality of care

List of Authors